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OF THE

ASIATIC SOCIETY

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THE SECRETARY AND SUB-SECRETARY.

VOL. XII.

PART II.—JULY TO DECEMBER, 1843.

NEW SERIES.

"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science, in different parts of Asia will commit their observations to writing, and send them to the Asiatic Society, in Calcutta; it will languish, if such communications shall be long intermitted; and will die away if they shall entirely cease."—SIR WM. JONES.

CALCUTTA:

BISHOP'S COLLEGE PRESS.

1843.



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JOURNAL

OF THE

ASIATIC SOCIETY.

Tables of Comparative Philology, shewing specimens of the affinity of the Greek, Latin and English Languages, with the Sanskrit, Persian, Russian, Gaelic, Welsh, Lithuanian, German, Hebrew, and Anglo-Saxon. By the Rev. James Long.

The following Comparative Tables of the Indo-European languages are the result of much labour and research during the last four years. Having myself, when studying the German, Dutch, Italian, Spanish and Portuguese languages, experienced the advantages accruing from giving attention to the affiliation of languages as a guide to the acquisition of them, I hope the same principle may be of use in facilitating among Europeans, a knowledge of the Sanskrit and Persian, and also that natives of India might with greater ease familiarise themselves with the leading European languages. The Bengali and Hindi tongues, as derived chiefly from the Sanskrit, must have a number of words of common origin with the English, which is connected with the Indo-Germanic languages. Steam is now increasing the intercourse between nations very rapidly, and binding the whole human race together as members of one great family, but the diversity of languages is a mighty antagonistic power. Those tables have been compiled with the design of rendering philological studies more interesting, as well as more scientific, and of smoothing the way to an acquaintance with different languages so necessary in the present day for religious, literary, and commercial purposes.

The rules I have laid down for my guidance in selecting words for those Comparative Tables, are,

- 1. To insert no word except on the authority of standard Philological works, as "Bopp's Vergleichende Grammatik," or Comparative Grammar of the Sanskrit, Greek, Latin, Lithuanian, Sclavonian, Gothic and German languages; "Eichhoff's Parallele des langues de l'Europe et de l'Inde;" "Vans Kennedy's Researches into the origin and affinity of the principal languages of Europe and Asia;" "Prichard's Eastern origin of the Celtic nations;" and many other publications.
- 2. Those words are considered as cognate, which are similar, or nearly similar in sound and meaning. Though sometimes the significations be not precisely the same, yet the difference is only such as might arise from a natural connection of ideas. Thus "the Sanskrit kúma, a lake, and κυμα, a wave; stoma the head and στομα, the mouth; balam, an army, and bellum, war, are clearly identical terms." As no two nations ever had exactly the same alphabetical and grammatical systems, it is evident that words in passing from one into the other, must have undergone some change in their consonants and vowels. Sir W. Jones himself, who was a very cautious Etymologist, has ob-"We know, a posteriori, that both fitz and hijo, by the nature of two several dialects, are derived from filius; that uncle comes from avus: and stranger from extra; that jour is deducible, through the Italian, from dies; and rossignol from luscinia." Etymological studies have been fixed on a firm basis by the Germans, and are conducted on ascertained principles. The great philological law by which modern Etymologists are guided, is, that no permutation of letters is allowed arbitrarily, it must be sanctioned by the usage and genius of the languages compared. Sir I. Newton, by applying the principles of the inductive philosophy to the material world, disclosed the arcana of nature's laws. Cuvier acted on the same system in his researches into Comparative Anatomy; and Bopp has succeeded equally well by grounding his rules for Comparative Philology on the broad basis of groups of languages. Who would suppose at first sight, that stranger is connected Etymologically with the Greek εκ; here is the inductive process; with $\varepsilon \kappa$, $\varepsilon \xi$ is cognate, then the Latin ex, extra, extraneus, the old French estranger, modernFrench etranger, and English stranger. The French eveque and English Bishop have not one letter the same, yet they are both acknowledged to be derived from the Greek επισκοπος.

- 3. I allow in the tables of those languages being cognate which have, in addition to an analogy in grammatical forms, a large number of original words expressive of the most natural and simple ideas, terms for family relations and the objects of visible nature, and verbal roots of the most frequent occurrence. This excludes all those words which commercial or literary intercourse might introduce.
- 4. Words, which in their primary signification denoted the properties of objects of sense, are applied to express the analogous mental qualities. Thus the words, a sanguinary man and a man of sanguine temperament are both derived from sanguis, blood. They are sometimes restricted in meaning; thus rector in Latin signifies a ruler, but in England it is limited to a clergyman of a certain official dignity, and in Scotland to the head-master of a classical school. Corps in Latin, signifies the body, the English words derived from it are—corpse, a dead body; corps—a body of soldiers;—corporation, a municipal body. We use villain in the sense of a wicked person, formerly it meant only a villager.

The languages of which I have given specimens for comparison in those tables belong to the Indo-European class, and have been spoken in a range of country extending from the Indian Ocean to the Atlantic, and from Ceylon to Iceland. The chief branches, are,

- 1. The Persian, denoted by (P); its primitive form was the Zend, the sacred language of the Magi, adopted by Zoroaster, and spoken by the ancient Persians; the Pehlvi, a cognate tongue, was spoken by the Medes and Parthians. Persian is incorporated very largely into Urdu.
- 2. The *Hebrew*, denoted by (H); the notion is now exploded that this was the parent language. Its cognates are Arabic, denoted by (A), Syriac, Chaldee and Phenician.
- 3. The German, denoted by (G); the Dutch bears a close affinity with German.
- 4. The Gaelic, denoted by (Ga); it is cognate with the Erse or Irish.
 - 5. The Welsh, denoted by (W)
- 6. The Cymraig, denoted by (C); it is cognate with the Welsh, Cornish, and Armoric, and belongs to the Celtic family.
- 7. The Russian, denoted by (R); it differs little from the Sclavonic, which is the ecclesiastical language of Russia.

- 8. The Lithuanian, denoted by (Li); it is of Sclavonian origin, and is still spoken in Courland and Lithuania. The ancient Prussian is a dialect of it.
- 9. The Anglo-Saxon, denoted by (S); it was the ancient language of England, and forms the basis of the English tongue.
- 10. The Latin, denoted by (L); the French, Spanish, Portuguese, Italian, and part of the English language are derived from it.
- 11. The *French*, denoted by (F); on account of its general spread, language is mentioned here.
- 12. The Gothic, denoted by (Go). This language was in constant use for probably 1500 years, as the tongue of the rude and widely dispersed tribes that inhabited Thrace and Germany.
- 13. The Arabic denoted by (A); few words are inserted, as many were the same as the Persian.
 - 14. The Greek, expressed by its own character.
 - 15. The English known by being printed in Italics.
 - 16. The Sanskrit.

No word is inserted in those tables which is not cognate with the Sanskrit, which is used as the common centre for all; hence many words, which are cognate with the Sanskrit, but not with either the Latin, Greek or English, are omitted. The field is wide, every year will add to the discoveries and improvements made in the science of Comparative Philology. The old system of etymological investigation. which limited the field of observation to one or two languages, is now abandoned. The discovery of the Sanskrit language has quite altered the mode and form of etymological researches. These tables collect in alphabetical order, (so as to facilitate reference,) what is scattered in many scarce and expensive works. I hope they may tend to make philological studies an exercise of the reasoning powers, and not a mere effort of memory. Comparative Philology might form a useful branch of study in seminaries of learning. It serves to produce a deep impression on the mind in favour of the great truth,-that mankind were originally one. The figures appended to some words indicate the number of words of similar origin in the same language; the third column gives the meaning of the Sanskrit.

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MEANING.	cause, goat, anoint, silver,	tne sky, both, herd, pain, together,	on the foot, breath, without, man, near, blow as wind,	to speak, take, superiority, garden, white, happiness, enough,
SANSKRIT.	Hetu 6, Aja, Lip 27, Rajata 10,	A Shtra 14, Ubba 11, Kul 76, Aka, Amá 6,	Anupadam, An 4, An 217, Nar 29, Anke 2, Vá 65,	Vad 33, Hri 7, Adhi 80, A'ráma, Arjun 2, Arishta 7, Alam 2,
GREEK.	Αιτία 25, Αιξ 6, Αλειφω 40, Αργυροσ 32, Αιθμο 40	Αμφω 9, Αγελη 11, Αχοσ 11, Αμα 2,	Αναπεόου, Λνεμος 31, Ανευ 4, Ανηρ 78, Αγχι 13, Αω 18, Αυδη 20,	Αιρεω 145, Αδια 15, Αρωμα, 5, spice, Αργον 21, Αριστος, noblest, Αλις 12,

Cognates.	 L. arvum, A. ardhi, arable, Ga. ar. Li. aszkus. L. acanthus. Ga. ain. Axiom. t, L. ab, Go. ab, Li. ap, G. auf, off, R. ob, Ga. o. Go. airiza, G. ehre, Ga. air, C. ar. Ga. ar, W. aer. L. augeo, Li. augu, L. ex, G. hoch, εξω, W. uch. Go. ahma, G. athem, atmosphere. P. sitára, L. astrum, Go. stairno, G. stern. L. vulcanus, volcano. Eing, G. werth, Li. wertas, north. 	L. ad, F. ad, Go. ad, C. at, Ga. eath, R. do. Go. ana, Li. na. Ga. ann, G. an, one, R. na. akrospire.
Meaning.	e, ceted, d, e soil, sparent, orn, est, . withou h, h, lomerate ell, . urn, ormed, ormed, outs, com	sin, move to, near to, summit,
SANSKRIT.	Asa 39, A'drita 2, A'ráv, Urvará 3, Achha, Kaṇtak 22, Nu 6, Yách, Apa 304, Uru 29, Ari 13, Asustha, Uchh, A'tmá 68, Táran, Uil 1, Vrittas 20, Sádhanam 8,	A'gas, Ata, Anu, Agra,
GREEK.	Αισσω 27, Αιδεω 33, Αραβος 5, Αρουρα 28, Ανγη 47, Ακανθη 32, Ατω, Αξιοω, Απο, Απο, Απο, Απο, Απο, Απο, Ανξειν 35, Ατμη 13, Αστρον 17, Αλτα 13, Αρτος, complete, Αρτος, complete,	Αγος, crime, Αττον, nearer, Ανα, Ακρον,

		, gustation.
COGNATES.	L. ursus, arctic, Ga. art, Wa. aerth. Arch, G. erz. Go. ahia, G. achte, αγαθος, Ga. agh. Annoy, F. annoyer, H. ánah. L. grego, H. ágar, exaggerate. Ode.	L. pello, Li. pillu, G. bolzen, bolt. βρι. Barometer. φνη, Ga. bo, W. byw, biography. R. bain, βοαω, Ga. baigh. L. gener, L. geno. Go. gawi, G. gau, Ga. ce, geography. L. grandis. W. cawr, Go. ginna, genius, oxygen. G. greise, C. grai. Go. kausia, L. gusto, G. koste, R. ruszain, gustation.
MEANING.	a bear, worthy, honor, distress, seizing, moist, praise,	throw, nourishment, heavy, existing, speaking, entrance, faughter's hus- the earth, venerable, pride, born, old, food,
SANSKRIT.	Riksha, Arha, Acha, anch, Anaya, A'graha 3, Ardra 13, I'dá,	Pil 2, Bhriti 10, Bhára 13, Bhab 33, Vagmin 1, Vesh 10, Iámátri, Go 14, Guru, Garva 9, Jan 95, Jírna 28, Ghas 6,
		18,
GREEK.	$A \rho \kappa \tau \sigma \sigma$, $A \rho \chi \iota$, $A \gamma \alpha \omega$, $A \gamma \alpha \omega$, $A \gamma \epsilon \rho \omega$, $A \gamma \epsilon \rho \omega$, $A \gamma \epsilon \rho \omega$, $A \rho \delta \omega$, $A \delta \omega$, $A \delta \omega$,	Βαλλω 327, Βρωσισ, food, Βαρον 28, Βιοσ 74, Βαγμα, Βησω 280, Γη 43, Γηρυς 25, Γανρον 11, Γενναω 226, Γενναω 226, Γενναω 26,

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COGNATES.	$L.$ gemo, $Go.$ gauno, $\gamma^{arepsilon}\mu\omega$. $L.$ gena, $Li.$ zendas, $F.$ joue. $R.$ zena, $C.$ cena, $Go.$ quens, kin , $Ga.$ gein, zen.	Tειρω, L. tero, G. zehre, C. torni, R. deru, Go. taira, G. zweie, δευτεροσ, δαίζω, R. dwoin. L. domo, Ga. duine, C. dyn, G. zahme. G. zeigen, L. doces, Go. teiha, G. zeige, teach. Ga. dearc, W. drem, Li. dyru. R. dlia, Ga. dlu, Li. del, W. deu. P. daden, Ga. daigh, Li. dumi, L. dos. θλαω, deal, C. tyllu, Li. dallyiu. Go. twai, Li. dwi, Ga. da, C. dau, R. dwai, G. zwei. G. zehn, Ga. deich, C. deg, Go. taihun, P. deh. Go. tahia, G. zacke, tack. W. deegryn, Go. tagr, G. zahie, P. ter, S. ter. P. andám.	snake, L . domus, G . dom, R . dom, $dome$. house, C . dir, Go . tus, $\partial v\eta$, $\partial va\omega$. husband's brother, L . levir, L i. déwéris, R . diever.
MEANING.	sound, jaw, mother,	waste, tear, divide, tame, exhibit, see, move, give, cut, two, ten, bite, a tear, corporeal,	snake, house, bad, husband's broth
Sanskrit.	Ghu, Ganda 11, Jani,	Dí 5, Dri, Dri, Dah 17, Dam 12, Dish 20, Drish 37, Dhi, Dadámi, Dadámi, Dal 25, Dwi 126, Dashan 32, Dash 10, Asru 3, Dehin 19,	Dhun 10, Dháman, Dus 130, Devri, devara,
G RЕЕК.	Γοαω, Γναθος, Γυνη,	Δεω, deficient, Δερω, flay, Δαιοω 38, Δαμαω 44, Δειξω 62, Δερκομαι 26, Δια, Δια, Διαλων, Διελων, Δυω 18, Δεκα 32, Δακνω 45, Δακνω 45, Δακνυ 36, Δεμας 19,	Δονεω 12, Δωμα 62, Δυς, Δαηρ,

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Gree к.	Sanskrit.	MEANING.	Cognates.
$E\rho\iota$,	Urí,	great,	Go. air, C. ar, Ga. awr.
Ερις, 21,	Ari,	enemy,	
Ετερος, 22,	Itara 4,	other,	heterodox, L. uter.
Ελαχιστος,	Lagheshtha,	light,	L. levis. G. leicht, L. lengwas, R. legkü, F. leger.
$E_{\chi e \nu \nu}$, 302,	I'sh,	possess,	Go. aigh, G. eigen, owe, Li. jegui.
Evpvc, 9,	Urí 11,	great,	Li. erdwas, G. ur.
Ελκος, 11,	Ulká 1,	flame,	L. ulcus, ulcerate.
Εντερον, 16,	Antra 54,	entrail,	L. antrum, Ga. eadar.
Eu, 5,	Su 365,	good,	C. hy, eulogy.
$E\zeta_{\omega}, 93,$	A'sana 2,	seat,	L. sedeo, session.
$E_{\rho\alpha}$, 9,	Irá 4,	the earth,	Go. airtha, G. erde, C. ard.
Εριον, 14,	U'rná 6,	wool,	
$Ε_{\mu\beta\rho\nu\sigma\nu}$, 7,	Bhrúna 4,	fetus,	Embryo.
Εσπερος,	Váspa 2,	vapor,	Vespers.
Εγειρω,	Jágrita 10,	awake,	
Ereov,	Satyam 69,	reality,	$\epsilon \theta \circ \sigma$, ethics, etymology.
Επ.,	Iti 5,	thus,	L. item, Go. ith, Li. ir, Ga. ath.
Επει,	Api 1,	if,	Go. jabai, G. ob.
Εγχος,	Shanku,	javelin,	L. ensis.
Eikw,	Ikh,	go,	L. ico.
Epaw,	Bar 10,	chose,	Ga. fear, W. gwor.
Εργον,	U'rja 5,	effort,	G. werk, work, L. urgeo, energy, Go. waurkia.

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COGNATES.	L. ob, Go. bi, G. bei, Li. pi.	Li. gywas, $P.$ ziad, $R.$ ziwoe, zoology. $L.$ jugum, $G.$ joch, $R.$ igo, $Ga.$ ceangal, $C.$ jau.	heroine. Ga. asaidh, W. eiste. W. haul, Li. el, L. sol, heliocentric, R. solnete, G. ost, east, L. aurora, avpa. Semi-circle.	 Li duma, θνος, L. fumus, G. dampf, R. dym. P. tizad, Go. tekan, Li tikumas. [dwor, C. drys. Ga. dorus, G. thür, P. dar, Li dwaras, W. dór R. Li drasa, trust, R. derzost, dare. 	G. theile, deal, R. dolia, F. taille, C. tyllus.
MEANING.	before,	life, join,	hero, sitting, sun, day-break, half, pin,	shake, smoke, sharpen, door, pride, servant, thirst,	divided, kill,
SANSKRIT.	Api 4,	Jíva, Yuj,	Shúra, A'saka, Heli, Ushas 42, Sámi 3, Kílam 6,	Dhú 10, Dhúmas 28, Tij 2, Dwára 17, Dharsha 11, Dása 11,	Dalita 25, Tud 30,
GREEK.	Επι,	$Z^{a\omega}$, $Z^{\nu\gamma o\varsigma}$,	Hρως, 8, Hσυχια, 10, Hλιος, 34, Hως, Ημισυ, Hλον,	$\begin{array}{c} \theta_{EW}, \\ \theta_{EW}, \\ \theta_{V}\mu_{O}\varsigma, \\ \theta_{V}\rho_{\alpha}, 39, \\ \theta_{\alpha}\rho_{\rho\omega}, 42, \\ \theta_{C}\varsigma, 6, \\ \theta_{EPO}\varsigma, \end{array}$	$\theta \lambda a \omega$, $\theta \nu \sigma \iota a$,

COGNATES.	Go. deds, deed.	Go. thiwi, R . diewa. $ heta_{ ext{ iny ω}}$.	Ichorous. G. eile.	Ionia. I. virus virusence.	L. sto, Ga. stad, W. eistedli, P. istad, R. stoiu.	L. claro, κ o λ a κ ϵ is a .	L. concha, conch, F. conque.	G. kein. Caligranhu.	Cassiterides.	W. cfin, canine, L. canis, Ga. cu, F. chien.	L. que, R. golosga, S. clypian, Ga ces.	G. halle, κολωος, L. clamo, call.	
MEANING.	basis, speed, leaf,	little girl, Kill,	sprinkle, go,	Greek, poison,	stand, power.	praise,	shell,	empty, healthy.	tin,	dog,	and,	to sound,	cover,
SANSKRIT.	Dhatu 20, Tur 19, Dala 12,	Dhayá, Hantá 3,	Uksh 3, 11,	Yavana, Visha, 2,	Stha, I'shitá 10.	Shál,	Shankha 6,	Shúnya 1, Kalya 14,	Kastíram,	Shwan 4,	Cha,	Kal 20,	Kúl,
GREEK.	Θεω, Θυνρος, Θαλλω,	θηλεια Θανατος,	$I\chi\omega\rho$, $Ia\lambda\lambda\omega$,	$law\nu$, lo_{ς} , 8,	$I_{\sigma au\eta\mu\iota},350,\ I_{\sigma\chi o\varsigma},$	$K\lambda \epsilon \omega$,	$\text{Ko}\gamma\chi\eta$, 12,	κενος, 17, Καλον, 44,	Κασσιτερον, 2,	$Kv\omega v, 31,$	Kat,	$Ka\lambda ε ω, 100,$	Καλυμμα, 60,

GREEK.	SANSKRIT.	MEANING.	Cognates.
Κελευω, 37,	Kil,	order,	Obsorbly I ambinum O lichale D akilai.
καγχαζω, 10, Κεφαλη, 64.	naku, Kapála 12.	skull,	Checke, L. cacining, G. Richele, R. Chikalu. L. caput, Ga. cean, G. kopfe.
Κλαω, 33,	Klish 5,	afflict,	L. clades, R. klui.
Kupios, 27,	Guru 33,	master,	G. kerl, Li. karalus.
Κολλος, 42,	Khol 7,	lame,	L. claudo, Go. halts, G. halt, χωλος.
Κλειω, 52,	Kúl,	enclose,	L. clavis, $\chi \alpha \lambda \iota \nu o \varsigma$, L. celo. G. hehlen. Ga. ceil
Κρυπτω, 30,	Gup 35,	hide,	Crupt.
Какос,	Kachchara,	vile,	
Καμπτος,	Kampitas 7,	quivering,	
$K\omega\mu\alpha$,	Sham 12,	repose,	L. comis, comatose.
Κραζω,	Krush,	sound,	Crow. L. crocio. G. krähe. Li. krokin.
Κλυδων,	Klid 2,	damp,	
Κειρω,	Chiri 2,	wound,	L. corium, crush, L. crucio, G. kratze.
Κτισις,	Kshiti 15,	abode,	Ga. cai.
Καμνω,	Ksham 5,	endure,	
Κιλλος,	Khara,	ass,	
$K\eta\beta_{0\varsigma}$	Kapi 23,	ape,	L. cephus.
Κοραζ,	Karata,	crow,	L. corvus, G. krähe.
Κις,	Kíta 6,	insect,	
Κολεος,	Shalka 3,	rind,	G. hülle, schale, hulk, shell.

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COGNATES.	Li. kassau, R. koszu.	H. gálal, κυλιω, cycle.	Comedy.	Li. szaukin, G. quack, R. kokuiu.	R. sluch, Ga. cluinn.	χαρασσω, character.	χαλαω. Ga cal.	σκυτος,		L. caro, carnal, F. carnaval.	F. cruel, L. crudelis, cruelty.		L. Iæsiò, G. leid.	Li. leju, C. llaith, G. lauge, R. lüanie.	L. loquor, Go. lahia, G. lache, R. likuiu.	L. libro, leave.	L. luces, look, G. leuchte. Fimlich, R. lizanie.		L. lucerna, W. lluch. Ga. loiche. S. leohd:	L. lego, Go. laika, R. leczu, Li. laigau.	Lithographie.
MEANING.	hurt,	globe,	love,	grief,	hear,	hard,	play,	curve,	· nest,	flesh,	cruel,	sorrow,	rob,	liquefy,	speak,	take,	see,	lick,	shine.	obtain,	clod,
SANSKRIT.	Kash 4,	Kosha 20,	Káma,	Shoak 20,	Shru 28,	Karkara 4,	Kil 2,	Kuḍi 8,	Kuláya 5,	Kravya 5,	Krúra 14,	Kheda 10,	Luth 2,	Lí 2,	Lók 3,	Labh 21,	Loch 5,	Lih 6,	Lok 6,	Lagh 2,	Loshta 7,
Greek.	Κεαζω,	Κυκλος,	Κωμος,	$K\omega\kappa v\omega$,	$K\lambda v\omega$,	Καρχαρον,	$K\eta\lambda \varepsilon \omega$,	Кутос,	Kalia, nest,	Κρεας,	Κρυερον,	Kndoc,	$\Lambda m_{\mathcal{C}}$ 30,	Λυω 84,	$\Lambda \epsilon \gamma \omega$,	$\Lambda \alpha \beta \omega 167$,	Λαω 10,	$\Lambda \epsilon \iota \chi \omega 17$,	Λυχνος, 13,	Λαχω,	Λιθος

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COGNATES.	R. lupliu, Li . luppu, lop , $\lambda \varepsilon \pi \tau o \varsigma$. $oxedsymbol{ } oxedsymbol{ } R$. med.	W. médh, G. meth, P. mai, C. medd, mede, μαοα, L. mens, Go. munds, mind, G. muth.	3.3	huotus, musicate. Emelia.	L. malum, G. maal, mole, R. malewain, moil, Go.	G. mund, Go. meuths, mouth, purig.	L. morus. Mathematics.		L. marcor, G. morde, R. moriu, murder.	W. mawr, Ga. mór, G. mauch, Li. macnus, P. mah.	Ga. mi.	G. meinung, Li. mintis, R. mniu, C. mynnu,	mean. [R. mater.	P. madar, Ga. mathair, G. mutter, C. maw, µata,	Li. maiszau, C. mysgu, P. amizad, R. mieszanie.	
MEANING.	cut, vex.	intoxication, intellect,	emerald, dirty,	neau, great house,	dirty,	entrance,	school,	a sage,	dying,	great,	not,	mind,		mother,	mix,	respectable,
SANSKRIT.	Lup, Lup,	Madhu 38, Mati 8,	Marakatajl, Malina,	Mahá griha I,	Malina 24,	Mukha 36,	Mürkha 9, Matha,	Mantri 26,	Marana 2,	Mahán 239,	Má 1,	Manas 50,		Mátri 23,	Misra 75,	Mánya,
GREEK.	$\Lambda\omega\beta\eta$, $\Lambda v\pi \epsilon\omega$,	Μεθυ 17, Μητις 30,	Μαραγδον 4, Μελαθρον 2,	Μαστακα 1δ, Μεγαρον,	Μελαν 26,	Μυχου 7,	Μαργον 18, Μαθητης 52.	Мачис 65.	Μαραινω 11,	Μεγα 25,	M_{η} 16.	Meroc 14,		Mnrnp 42,	$M_{1\sigma\gamma\omega}$ 70,	Μενεαινω 27,

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COGNATES.	Ga smuain.		L. machinor, G. mache, make.		Melancholy.	Go. mita, Li. mettoia.	L. Mutus, mute.	Misanthropy.	Go. mith, G. mit, R. mez, mid, S. mid.	L. magicus, magician.	Li. mikenu, $\mu v \theta o \varsigma$.	L. moria.	G. muth, Li. mislis, mood, R. mysl.	L. membrum, $\mu o \iota \rho a$, R. miera, Li. mora.	Go. mes, G. mett, C. maeth, Li. miesa.	L. moria.		[C. nawf, P. nau.	Go. nota, nautical, L. nauta, Ga. navi, G. nachen,	Astronomy, F. nomade. [G. neu, F. neuf.	L. novus, W. newydh, Ga. nua, P. nau, R. nowyi,	W. nivwl, Ga. neamh, G. nebel, L. nebula, R. nebo.
MEANING.	remember,	fainting,	move,	sensuality,	dirt,	measure,	tie,	envy,	unite,	delusion,	sound,	fainting,	understand,	joint,	flesh,	fool,	injure,		ship,	precept,	new,	cloud,
Sanskrit.	Mná,	Múr,	Mogh,	Moha,	Mala 17,	Miti 10,	Mú 3,	Mish 2,	Mith,	Máya 15,	Mish 1,	Múrchhán,	Medh,	Marman 7,	Mánsa 14,	Muhira 2,	Mrina,		Náu 7,	Nema 45,	Nava 33,	Nabhas 28,
GREEK.	Μναομαι 88,	Μωρον 11,	Μογεω 8,	Maw 21,	Μελας 26,	Msrpov,	$Mv\omega$,	$M_{t\sigma \epsilon \omega}$,	Μετα,	$May \epsilon \iota a$,	Μηκαζω,	$Ma\rho\gamma a\omega$,	$M\eta\delta o_{\mathcal{C}}$,	Mepoc,	Μαζα,	Mwpos,	$Ma\rho \nu \omega$,		Navc 40,	Nopoc 53,	Neog 66,	Νεφελη 25,
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COGNATES.	L. nox, G. nacht, R. noez, Ga. nochd, C. nos. G. nieder, R. nizkü. G. snur, L. nervum, R. sner. L. nurus. L. nuo, Go. neiwa, G. neige, R. nesu. Nereids.	 A. seif, H. tsává. Li. skirren, shear, G. schere. G. achte, P. hesht, L. octo, R. osm, C. wyth, R. vo-Li. migla, ομιχλεω, R. mgla, P. migh Anodyne. Go. sama, homologate, G. samt, same, L. similis, aμa, W. oll, Ga. aile, all, G. all, Go. ols. Go. namo, W. enu, Ga. ainm, P. nam. G. name. L. os. osteology G. braue, P. abru, R. browi. 	[wes. Li ukis, parochial, G. wick, L. vicus, Go. weihs, R. Homily.
MEANING.	night, below, nerve, daughter-in-law, lead, water,	wound, razor, eight, cloud, pain, similar, extensive, calamity, name, bone,	current, house, meeting,
SANSKRIT.	Nishá 28, Nichai 5, Snasá, Snusá, Nay 12, Nír 10,	Kshi 15, Kshúr 11, Ashtrin 24, Megh 38, A'dínav, Sam, A'lam, Ití, Nám 8, Asthi 21, Bhrú 8,	Urmi 4, Oka 3, Mila 10,
GREEK.	Ννζ, Νειατος, Νευρον, Νυος, Νεται, Νηρος,	Ευφος, 12, Ευρω, 82, Οκτω 10, Ομιχλη 2, Οκυη 34, Ομον 41, Ολον 14, Οιτον 2, Ονομα 76, Οστεον 16, Οφρυς 22,	Ορμη 30, Οικος 172, Ομιλος 20,

COGNATES.	 L. imber. G. wesen, Go. wisan, R. weszcz. L. orior, ορθος, oriental, H. ar. ερση, L. urino. Optics. Period.	Go. fimf, Li. penki, R. piat, G. fünf, P. penj, W. Go. faura, Li. pra, G. vor, L. prius. G. burgh, Li. pillis, Ga. baile, πνργος, metropolis. L. præ, G. vor, fore. P. afruzad, L. buro, fire. L. lavo, R. plavaiu. P. pazad, G. backe, R. peczenie. L. penna, feather, R. ptica, G feder. L. perio, G. fahre, fare, Li. puru. L. pages, G. fasse, R. pazu, fasten.
MEANING.	water, substance, approach, sprinkle, see, increase, copulate, road,	leaf, five, before city, before, burn, submerge, bake, winged, business, get over, noose,
SANSKRIT.	Ambhas, 12, Vasu, 30, Ri, Vṛish, 14, I'kshu, 4, Edh, Yabh, Adhwan, 5,	Patra, 44, Panchan, 100, Pra, 957, Pura, 13, Puras, 37, Prush, 3, Pláv, Pachati, 13, Patrin, 44, Patra, Pára, Pára,
Greek.	Ομβρος, Ουσια, Ορω, Ορος, Οσσομαι, Οιδεω, Οιφεω, Οδον,	Πεταλον, Πεντε, 26, Προ, Πολιν, 77, Παρος, 5, Πρηθω, 30, Πλονω, 88, Περον, 65, Πονος, 104, Περον, 66, Περον, 66,

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COGNATES. Go. fairra, L. porro. G. breite, Li. plotis, Go. braids. Practice. Pole. Go. fulla, G. voll, full, L. pleo, R. polniu.	L. puto, Li. bundu, R. bdiu. G. bürg, Go. baurgs, C. brig, F. bourg. Presbyter.	L. ruo, Go. runs, run, pooc, R. rieiu. Go. rodia, C. reithio, G. redner, R. ritor, L. rhetor. L. rugio, Go. rukia, G. rausche, R. ryczu. Li. rézas, G. reisse, L. rosio. R. riez.	G. rath. <i>Li</i> . redau. Go. ropia, G. rufe, R. rewu. <i>L</i> . rigeo, G. recke, <i>rigor</i> .	Salient. L. series, ειρω, Go. siwia, Li. suwu. Li. storas, G. starr. Li. su, Ga. so, G. sammt. R. so. L. simul, P. ham. G. stimme.
MEANING. fill, large, touch, move, great,	knowledge, town, chief,	move, speech, sound, separate,	accompusn, sound, fear,	move, chain, firm, with, praise.
Sanskrit. Púr, 22, Prithu, 6, Prich, 4, Pal, 20, Pal, 14,	Budn, Purí, 12, Prabhu, p: 0	Al, o, Rádhaná, 2, Rása, 6, Rish, 12, Rádh. 8	Rav, 2, Rikh, 1,	Shal, 2, Seru, Sthira, 23, Sam, 550, Stoma, 1,
Greek. Πορω, Πλατεια, Πρασσω, Πολεω, Πολυ,	Πυργος, Πρεσβυς, Ρεω, denart 137	Ρητος 86, Ροιζος, Ρησοω 94, Ρέζω,	Ρωβδος, Ριγος, Σπλει	Σειρα 12, Στερεος 10, Συν, Στομα 106,

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COGNATES.	Splenetic. Serve.	Stiff.	Go. salja, G. sae, sow, Lr. seju, K. sietu. P. sáyah, R. sien, Go. skadus, G. schatte. G. sonne, L. sirius, C. haul, Li. saule.	L. spisso, Li. spaudziù. G. spitze.	G. stiel, στηλη, Ga. stol, R. stul, G. stuhl, stool.	G. stecke, stick, Li. stegiu, L. stagno. G. stopfe, L. stipo, G. stopfe, stop, R. stupaiu. P. siphar, G. sphäre, atmosphere.		Li. trys, R. tri, Ga. tri, G. drei, Go. threis. R. czetwertyi, Li. Ketwortas, G. vierte. Ga. deanam.	L. terreo, R. triasu. L. traho, Go. thragia, G. trage, drag, Li. traukin, R.
MEANING.	spleen, boundary, worship.	fixed, throb,	go, shade, sun,	increase, bind,	firm ground, bosom,	cover, stiff, sky,	hole	three, four, place,	fear, move,
SANSKRIT.	Plíhan, 1, Símá, 11, Sev. 12.	Sthabira, 2, Sphár, 11,	Su, Chháya, 20, Súrva,	Spháy, Spash, 6,	Sthala, Stan, 13,	Sthag, 10, Stambha, 10, Swar, 37,	Surangá, 1,	Tri, 160, Chatur, 30, Dhá. 40.	Tras, 3, Trag, 1,
GREEK.	$\Sigma_{\pi}\lambda_{\eta\nu}$ 6, $\Sigma_{\eta\mu\alpha}$ 62, $\Sigma_{\epsilon\beta\alpha}$ 38.	Στιβαρον 42, Σπαιρω 7,	Σευω, Σκια 43, Σειριος,	$\sum_{\mu} \alpha_{\mu}$, $\sum_{\phi} (\gamma \gamma \varphi_{\phi})$	Στολός, Στηνιον	Στεγω, Στειβω, Σφαιρα,	$\Sigma \eta \rho a \gamma \xi$,	$T_{ ho ta}$, $T_{ ho au a}$, $T_{ ho au a}$	Ταρασσω, 31, Τρεχω 172,

COGNATES.	Li. teku, R. teku, Ga. tegam. Go. thana, G. den, R. tot, Li. ta. Li. tarpsatu. G. zeuge, Go. tauhia.	L. tendo, G. dehne tend. G. teiche, Li. taszau, L. tignum, R. teszu. Li. czelas, R. ciel, G. ziel, L. solidus.	Go. thiuda, Ga. tuath, C. tud, R. tesecza. L. tum, G. dann, Li. tada, then, R. togda. W. tervyn, Ga. teor,	L. tero, L. trans, Go. thairh. G. tapfe, tap, R. topaiu, F. tape.	G. Zeugen, Go. tauhia, τεκω. L. tero, G. driesse, τρητος, R. tru, G. trenne, G. dufte. L. tergo, G. trockne, drain.	L. udum, G . otter, Li . udra. L . unda, Go . wato, Li . wandu, wet , R . wydra.
MEANING.	move, it, pleasing, offspring,	extend, carpenter, complete,	mother, then, limit,	pass across, injure, preserve, but,	offspring, cut, incense, dry,	grass, wet, water,
SANSKRIT.	Tak, Tam, Tarpana, 4, Tuj, 2,	Tani, 71, Takshan, 4, Tal, 2,	Tátá, Tathá, 4, Tarman,	Trí, Tup, 2, Trá, 5, Tu,	Tuj, 2 Trut, 4, Dhúpa, 6, Dhrákh, Tring, 24	Utta, 4, Uda, 43,
GREEK.	Ταχα, Τον, Τερπω 15, Τοκος 126,	ιεινω 203, Τεκτων 48, Τελειω, Τ	$\Gamma \iota \tau \iota \sigma_{\eta}$, $\Gamma \circ \iota \varepsilon_{\varphi}$, $\Gamma \epsilon \rho \mu a$, Γ	1 ερεω, Τυπτω, Τηρεω, Τε,	Τυχος, Τρυσις, Τυφος, Τρυγεω, Τεοχνος,	Υετον 12, Υδωρ 63,

COGNATES.	L. sub, Go. uf, G. ob, Li. pa, up, R. pa. L. opus, xeb. Li. sunus, R. sieu, L. satus, vv.c. W. uchediad G. hoch. Hygiene. L. exterus. Li. uktas. L. super, Go. upar, superior.	L. paveo, Li. bijau, R. boiu. L. foveo, Go. botia, φαιδρος. L. fagis, anthropophagi. G. weine, euphony. Go. baua, be, L. fons, R. bywau, Ga. bu. φυλασσω. philantrophy. L. frigeo, G. frierend, R. priazus, L. frigus, G. frost. Li. hir, Ga. cior, cheiromancy. L. heri, Go. gistra, G. gestern, yester. L. humus, Li. zieme, R. zemlia.
MEANING.	beneath, weave, bring forth, high, strength, superior, wet,	terror, shine, burn, eat, sound, be, protect, parch, hand, yesterday, earth,
SANSKRIT.	Upa, 186, Váp, 5, Súsh, Uchchakais, 30, Oj, 3, Uttara, 66, Uksh, 1,	Bhíshma, 55, Bhá, 24, Plush, 2, Bhoga, 19, Ván, 15, Bhú, 127, Pál, Bhrasj, 1, Kara, 74, Hyas, 1, Bhími, 53, Kshoni, 7,
GREEK.	Υπο, Υφαω 38, Υιος, Υψον, Υγιεω, Υστερος, Υγρος, Υπερ,	Φοβος 34, Φαω 60, Φλεξω 60, Φαγω 112, Φωνη 121, Φυη, Φισω, Φρισω, Χειρ 120, Χειρ 120, Χαμαι 7, Χαμαι 7, Χθων 14,

Cognates.	<i>Li.</i> ziema, <i>R.</i> zima.	L. anser, G. gans, Li. zasis, R. gus.	 L. ode, ode. L. ocior. L. ut, Go. at
MEANING.	bridle bit, cold, joyful, sprinkle, hog,	goose, touch,	unfruitful, raw, praise, quick, as,
SANSKRIT.	Khalina, 2, Hima, 37 Hristas, 8, Ghṛi, 21, Kira, 1, Khan, 7,	Hansa, Pas,	Aphala, A'ma, I'd, A'shu, Yat,
GREEK.	Χαλκον 48, Χειμα, Χαρτος, Χριω, Χοιρος, Χαινω,	Ψαω 56,	$\Omega \phi \epsilon \lambda \iota \mu o \nu$, $\Omega \mu o \nu$, $\Omega \rho o \nu$, $\Omega \delta \eta$, $\Omega \delta \eta$, $\Omega \kappa v c$, Ωc , Ωc ,

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COGNATES.	Go. hafts, $\alpha\phi\theta\ell\iota\iota\iota$, F. apte, P. yábad, H. aphad, S. L. ætas, $\alpha\iota\omega\nu$, Ga. aois, C. eu, G. ewig. [habban. Go. ahs, G. ecke, C. awch, L. acer, $\alpha\kappa\eta$, R. ostrie. G. achse, Li aszis, $\alpha\varkappa le$, $\alpha \xi\omega\nu$, R. os.	aγω, agent, enact. G. gans, Li. zasis, χην. Hall, ανλη, G. halle, H. áhal. Ενος, H. shánáh, annual.	αμος, uniquity, L. ante. αμφί, G. um, Li. api, C. am, R. ob. G. art, artist, αρετη. Abject. οιω, avidity, H. ábháh. IV. awyz. L. vulva, alvine. αρουρα, L. ruris, arable.	G. unk, Li. angis, εχις, R. uz. oξυς, F. aigre, acrid. Aliment. Go. af, G. ab, of, Li. ap, R. ob, Ga. o. Go. at, C. at, aττω, S. æt. Εντος, αντρον. Go. ahwa, Li. uppà, S. ewe, L. amnis, P. áb. Li. auszras, R. utro.
MEANING.	provide, age, edge, wheel,	move, goose, house, year,	move, cause, reproached, excite affection, womb, fertile land,	snake, sharp, nourish, separate, approach to, within, water, dawn,
SANSKRIT.	Apnoti, 10, A'yu, 9, Asra, Aksha, 2,	Aj, Hansa, 16, A'laya, Háyana,	Antaga, 1. Am, 205, Artha, 53, Avagít, Av, Ulva, Urwará,	Naga, Khara, 3, Pál, 12, apa, At, Antara, 54, A'pah, Uṣhas, 42,
LATIN.	Aptare, Gevum, Aciem, Axis,	Ago, Anser, Aula, Annus,	Antiquus, Ambio, Ars, Abjectus, Aveo, Alvus, Arvus,	Anguis, Acer, Alo, Ab, Ad, Antrum, Aqua, Aurora,

COGNATES.	etkoç, equity. atroç, C. adn, aviary. Go. aiz, G. eisen, F. airain, S. æs, A. ayar.	ειργω, αρκεω, coercion. ητε, Go. aithaw, Ga. achs, C. ai, G. auch. Go. and, G. ant, Li. at, Ga. ath, αντι. Li. eris, ερραος,	 H. mar, L. myrrha, μυρρα. τμερος, H. chamad, amiable, P. kam. H. ozen. H. cháron, L. areo, F. arène. armed, F. armee. αργυρος, Ga. airgidh, W. arriant. αλλος, G. jener, Li. anas, R. inyi, C. allan. 	πολεμος, belligerent, βελος. πιω, Η. phi, imbibe. βυκανη. L. bene, benefit, F. bien.	Li. kaukaras, G. acumen. G. kalch, $\kappa v \lambda \iota \xi$, R. kulgan, Li. kylikas. [$vo_{\mathcal{G}}$, $holm$. G. hülle, $\kappa \omega \lambda o \nu$, Li. kalwa, R. cholm G. kulm, $\kappa \alpha \lambda \omega$
MEANING.	unity, bird, iron,	screen, also, over, ram,	sourness, honour, part, dust, armour, silver, the other,	army, drink, sound, virtuous,	top, unblown, a mound,
Sanskrit.	A'ikya, A'ti, Ayas,	Kich, Uta, 2, Ati, 112, U'rná wool,	Amia, 19, Am, 1, Ansha, 10, Renu, 2, Barman, 2, Rájata, Anyas,	Valam, Pivati, 27, Bukka, 5, Púnyas, 33,	Shikhá, 16, Kaliká, 3, Kúla,
LATIN.	Equus, Avis, Es,	Arceo, Aut, Ante, Aries,	Amo, Ansa, Arena, Arma, Argentum,	Bellum, Sibit, Succinum, Sonus,	Jacumen, ··· Jalix, Jollis,

LATIN.	SANSKRIT.	MEANING.	COGNATES.
Cordis,	Hṛid,	heart,	Ga. criodhe, G. herz, καρδια, cordial, Li. szirdis, Go.
Creo,	Kṛi,	make,	κρεω, L. cura, . G kram, Li. kromas. [hairto.
Concha,	Shankha,	shell,	κογχη, conch, F. conchites.
Clam,	Chulum,	disappear,	L. clandestinus, H. alam.
Cœlum,	Khila,	empty,	κοιλον, celestial, F. celeste.
Carus,	Shreyas,	excellent,	Li. geras, C. car, L. gratus, $\chi^{\alpha\rho\iota\iota\iota\iota\varsigma}$, F. cher.
Carmen,	Karman,	incantation,	L. cæremonia, F. ceremonial.
Cano,	Gána,	sing,	Ga. canam, W. canu, F. chant, S. galan.
Cæsaries,	Kesha, 49,	hair,	Li. kasa, $\chi^{\alpha \iota \tau \eta}$.
Coedo,	Shad, 7,	wound,	G. schäder, Li. skaudus, scathe, $\kappa\eta\delta\omega$.
Cortex,	Kritti,	bark,	$cork$, G. kork, $\chi \rho \omega \varsigma$,
Crepusculum,	Kshapá.	night,	L. crepus,
Crus,	Kshura.	hoof,	H. keráng, crural, F. crural.
Cio,	Chi.	collect,	$\gamma a \omega, \chi \varepsilon \omega$, excite.
Centum,	Shatam, 66,	hundred,	εκατον, Ga.ciad, R. sto, G. hundert, Li. szemtas, P. sad.
Cymba,	Kumbha, 18,	water jar,	$\kappa_{\mu\mu}\beta_{0}$, P. khum, cymbal.
Caligo,	Kalusha, 3,	opacity,	aχλυς, caliginous.
Cautes,	Kataka, 1,	rock,	F. queux, L. cos.
Career,	Kárágára, 2,	jail,	L. coerceo, incarcerate, F. concierge.
Cella,	Kula,	abode,	κλειω, H. kálá, celler.
Crux,	Krichhra, 3,	pain	ικριον, cross, F. croix.
Candeo,	Chanda, 9,	warm,	G. scheine, kindle Go. skeina, C. cyane.
Calamus,	Kalama, 3,	reed,	L. culmus, G. halm, R. soloma, F. chaume.
Caleo,	Jwálá, 16,	flame,	Li. szilta, $\kappa\eta\lambda\epsilon\omega$, F. chaud, calefaction.

COGNATES.	 L. clausus, κλειω, S. cæggian, clavicle. G. karren, car, χορος, F. char, current. T. Pali, καλ μα σλαμάν, Ε σλαμέν. 	Ga. ceil, C. celu, G. hehle, hill, κλειω, W. cel. G. ceil, C. celu, G. hehle, hill, κλειω, W. cel. G. kuh, R. gowiado, P. gau, Z. gao, S. cu H. gaah.	κοντοσ, Κοοκα είνερηνε	$\kappa_0 \mu \epsilon \omega$, L. comis, comely.	κρινω, L. caro, discern.	$\kappa a \rho \pi a \sigma o c$, H. karpas, F. karias, A. karbas, Go , ga, Ga . co, C. can, F. con, commotion.	C. corf, corpse, G. korper, F. corps.	Li galwa, Ga. coll, av\u00e4n, L. cella, R. golowa.	κορση, L. crinis, Li. karczis, R. szerst, S. cyrran.	hough, Koxwyn, S. hog.	κρεας, carnal, F. carnal. 13. kraujas C. oran, L. orudus, core. R. krav.	Li. kalu, Go. holo, colony, κλαω, G. höhle, R. kalu.	C. caed, kettle, Korvlog, R. kad, Go. kas, G. kessel.	G. keule, Li. kolas, καυλος, R. kol.	$\chi_{a\tau \epsilon \omega}$, $\kappa_{a\tau a}$, L . casus, R . ko.	$\kappa\lambda$ ειω, close, G. schluss, $\chi\omega\lambda\nu\omega$, G. halts.
MEANING.	junction, go,	cover,	lance, confine	desirable,	scatter,	with,	fetus, head,	cover,	hair,	belly,	flesh, oozing,	cultivator,	waterpot,	stake,	diminish,	connected,
SANSKRIT.	Shlesh, 10, Char, 28, Chalat, 14	Shal, Gau, 75,	Kunta, 2, Kuch, 9,	Káma,	Kŗl, Kórnósa	Sam,	Garbha, 34, Shiras, 32,	Shal, 2,	Shiroja,	Kuksha, 3,	Krabya, 5, Srabana,	Halin, 13,	Kaḍa,	Shala,	Shesha,	Shlishta,
LATIN.	Clavis,' Curro,	Celo, Ceva,	Contus, Cingo,	Como,	Cerno,	Cum,	Corpus, Cranium,	Calva,	Cirrus,	Coxa,	Caro, Cruor,	Colo,	Cadus,	Caulis,	Cassus,	Clausus,

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COGNATES.	κονεω. Procrastinate. κριτος, certain, F. certainment. κντος, G. haut, hide, R. koza, cuticle. καρδια, credit. L. credulus, F. credit.	 Gae dia, W. dydh, G. tag, δaoc, Li. diena, R. den, S. W. dysgu, δεικνυω, G. zeige, Ga. teagasg, δοκεω, Li. dezine, Go. taihswa, δεξια, R. desnaia, dexterity. δαμαω, Go. tamiths, G. zahm, H. dama, C. dyn, A. tamnnu, Ga. duine. Li. turru, C. tariu, G. daure, τηρεω, H. dor, P. turaz. 	 Ga. dia, C. diuw, θεος, Li. diewas, P. dio. [G. zahn. W. dant, Go. tunthas, Li. dantis, P. dandam, οδους Li. dunis, δανος, R. dan, Li. dinis, Z. da. [dentist. debility, F. debile, H. dáv, A. dab. C. tegwch, δει, G. tugend, indecorous. G. weide, L. viduus, ιδιος, division. δια, Ga. dis, displace, F. dis, Go. dis. δωμα, G. dom, dome, δεμω, R. dom, Ga. dom. G. dick, δασυς, Li. duzas, H. dáshen, A. dashan. 	$\delta a \rho \theta \epsilon \omega$, G. träum, R. dremliu, dream. Ga. deich, R. desiat, Li. deszimt, G. zehn, P. deh.
MEANING.	move, to-morrow, belief, skin, faith.	day, advised, right hand, tame,	God, tooth, give, difficult, dignity, separate, twice, house,	sleep, ten,
SANSKRIT.	Shan, 6, Shwas, 2, Shraddhá, 20, Kritti, Shraddhá.	Divasa, 23, Dishta, Dakshina, 7, Dám, 12, Dhri,	Deva, 162, Danta, 45, Dá, 35, Durbala, Tejas, 16, Vidhava, 2, Dwishas, Dháma,	Drá, Dashan, 32,
LATIN.	Conor, Cras, Certus, Cutis,	Dies, Disco, Dexter, Domo, Durus,	Deus, Dens, Da, Dabilis, Decus, Divido, C1Dis, M Domus, Densus,	Dormio, Decem,

COGNATES.	Essence, present, F. essentiel, Ga. as, W. ys.	$\eta \delta \varepsilon$, G. and, Li ir, F. et. Ga. as.	Evanescent.	G. ich, Ga. mi, C. mi, P. men, R. ia, $\varepsilon \gamma \omega$, Go. ik.	·55X43	albos, G. hitze, heat, Ga. aodhair, C. etc.	Li. eimi, transient, W. he.	Go. us, G. aus, Li. uz, Ga. as, C. uch, R. woz.	G. irre, err, sppwv, F. erre. [S. etam.	v. itands, Ga. it	fundament.	Ga. W. benw. effeminate hean. [13 neru hean.	φερω, Ga. beir. G. bären. P. barad. R. bern.	Thoog B nlawen G Ause Co Andre S Aum	L. floreo, G. blühe, foliage Ga. plur. [Ga. brathair.	Go. brothar, W. brodyr, R. brat, pparwo, P. braudur,	front	φυεται, P. bawad. beeth.	vaov. nrofane	And II now foundation	L. fores forensic	Bite, L. fodio, G. faden, H. bádad.	φυτος, F. fetus.
MEANING.	be,	and,	disappear,	I,	sword,	blazing,	80,	nign,	go,	eat,	belly,	woman,	bear,	piece of water,	bnd,	brother,	border,	pe,	temple,	severe,	outwards,	splitting,	open as a bud,
SANSKRIT.	Astu,	Atha, 4,	Vinásha,	Aham,	Asi, 2,	Iddha, 14,	Ay, I,	Ochena,	Ir, 2,	Ad,	Phandas, 1,	Vámá,	Bhṛi, 32,	Plava,	Phal, 90,	Bhrátri,	Pránta, 1,	Bhavati,	Vayunam,	Parusha, 4,	Vahis,	Vibheda, 31,	Sphtíam, 9,
LATIN.	Esse,	Et,	Evanesco,	Ego,	Ensis,	Estus,	E0,	EA,	Erro,	Edo,	Fundus,	Femina,	Fero,	Fluvius,	Folium,	Frater,	Frons,	Fuit,	Fanum,	Ferox,	Foris,	Findo,	Fetus,

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COGNATES.	φωγω, suffocate. φαζω, L. fas, nefarious. φυλον, affliate, F. filial. Li. begu, φυζω, R. biegu, F. fuis, refuge. βοεμω, F. fremir.	φενω, F. finis, infinite. [lous. Li. girru, G. girre, L. gvrus, γηρυω, R. graiu, aarru-	Ga. gean, 2vos, P. zenne, Li. gemu, Go. kuni, kin.	Go. gauria, F. grave, R. grubyi, gravity. Gosture, F. geste, P. girad. R. cholod, Li szaltis, G. kälte, F. gelee, gelid, S. cælan.	$\gamma^{\epsilon \nu \omega}$, G. kost, gustation. $\chi^{\nu \tau o \varsigma}$.	Go. hindag, G. heute, Ga. anduigh, Li. szendien. Li. zieme, P. bum, χαμαι, Go. guma, exhume. Li. ziema, χειμαι, F. hivernal. ωραι, F. heure, H. aor, hourly, horsocope. L. hirsutus. ορρωδεω, horrent.	L. gero, $\chi^{\eta\rho}$ 005, hereditary. H. gedi.
MEANING.	light, word, young, dread,	gone,	mankind,	heavy, take, cold,	eat, poured,	to-day, earth, cold, hour, ram,	take, ranı,
SANSKRIT.	Bhás, 24, Bhásá, 10, Bálisha, 2, Bhíshá, 1, Bhran.	Phaṇita, Grí,	Jana, 95, Jánn, 3	Guru, 22, Grah, 78, Jala,	Ghasti, 6, Hita,	Adya, 4, Bhúm, 35, Híma, 37, Horá, Eraka, Hṛiṣhta,	Hṛi, 7, Edaka,
LATIN.	Focus, Fari, Filius, Fugio,	Finis,	Genus,	Genu, Gravis, Gero, Gelu,	Gustus, Gutta,	Hodie, Humus, Hyems, Hora, Hircus,	Hæres, Hædus,

COGNATES.	Go. ita, G. es, Ga, e, R. ono. L. item, F. item, identity. Li. ugni, $a \iota \gamma \lambda \eta$ R. ogn, Ga . aghna, ignite. Quote.	Go. undar, Ga. eider, $\varepsilon \nu \tau \circ \varsigma$, under, R . wnutr. $\varepsilon \iota \tau a$. $\iota \theta \iota \varsigma$, Li . eimi, Go. iddia, C. æthym, R . idu, H . atha. $o \mu \beta \rho \circ \varsigma$.	, R. iaryi, S. yrre. Fa. ceangail, C. jau, P. yugh, G. jo	 In yenovan. P. yuvan, W. jeuant, Li. jaunas, G. jugend, R. iunyi, ηπαρ, hepatic, F. hepatique. juice, Li. juka, R. iucha, F. jus. Justice, F. justesse. οργιζω. 	λογος, elocution, Go. lahia, R. likuiu. C. lap. Li. lupe, G. lippe, F. levre, S. lippa, P. law. λαζω, G. leid, F. lese. λαω, glad, Go. lusto, Li. losztu, G. lüste. λειος, levity, relief. Li. laikan, λυγοω, F. lie, oblige, L. religio.
MEANING.	it, this, fire, word,	midst, thus, going, water,	envy, join,	young, liver, soup, adapted blame	speak, mouth, resist, delight, light, touch,
Sanskrit.	Iti, Idam, Agni, 70, Kathá, 20,	Antar, 54, Iti, 5, Eti, 1, Ambhas, 12,	ľrshyá, 9, Yuj, 40, Div.	Yuvan, Yakrit, Yúsha, Yuta, 3, Jarj, 2,	Loch, Lapanam, 7, Ludi, 14, H1ád, 3, Laghu, 27, Lig, 7,
Latin.	Id, Idem, Ignis, Inquit,	Intra, Ita, Itum, Imbris,	Ira, Jungo, Jovis,	Juvenis Jecur, Jus, Justus, Jurgo,	Loquor, Labium, Lædo, Lætus, Levis, Ligo,

18	43.]				T	'able	es of	Ca	mp	oar	ati	ve	P_{i}	iilo	olog	y.						869	9
COGNATES.	Go. leibia, G. liebe, Li. lubijas, love, R. liubow, H. leváv.	λαος, G. lage, C. llach, λεχος, R. loze, local, F. local.	Go. leiks, W. Ihug, Asvkog, R. luez, light, G. licht.	$\lambda v \omega$, lave, L. alluvium, F. alluvion.	H. luz, ludicrous, $\lambda^{\alpha\nu\omega}$, G. letze.	$\lambda \alpha \theta \omega$, H. lát, latent, F. latent.	G. lang, Go. langs, F. long, S. lengian, longitude.	Mole, L. moles, F. môle.	G. murmeln, μυρμυρον, Li. murmas. R. murczu	μερδω, mark, Go. marka, G. merke, admire	μεριζω, G. morsch, remorse.	G. maure, immure, F. mure, L. moror. Li. muras.	G. mahl, μελας, F. mal, A. malam malenolent S mal	Go. marei, W. niôr, Ga. muir, R. more. G. meer A.	C. mon, G. mensch, R. muz, Go. manna, masculine.	Go midums, G. mittle, μερος, R. mezdu, P.mign maraky	G. meiner, Ga. mo, P. men, G. ma. [mediate.	maen us.	uew, mendacions.	nental. G. meinen	Go. mitaths, wa, L. modus, H. madad, R. meza	Li. marinu, W. marw, H. meth. Ga. marbh ugooc.	μυς, P. mush, G. maus, R. mysz, S. mus. [R. merius.	
MEANING.	desirous,	world,	shine,	melted,	sport,	conceal,	connected,	root,	rustling,	discern,	grind,	encircle,	sin,	ocean,	man,	midst,	mine,	great,	vile,	mind,	measured,	dead	mouse,	
SANSKRIT.	Lubdhd,	Loka, 35,	Loka, 9,	Lína,	Lad,	Lud,	Lagna, 4,	Múla, 20,	Marmara,	Mrish,	Mṛid,	Mur, 5,	Mala,	Mira,	Manusha,	Madhya, 28,	Mama,	Mahan, 239,	Manda,	Manas, 103,	Mita, 10,	Mṛita, 34,	Músh,	
LATIN.	Libido	Locus,	Lux,	Luvium,	Ludo,	Lateo,	Longus,	Moles,	Murmur,	Miror,	Mordeo,	Murus,	Malus,	Mare,	Mas,	Medium,	Meum,	Magnus,	n Menda,	Mens,	Metiri,	Mors,	Mus,	

R. mozg, G. mark, medullary.

marrow,

Medas, 12,

Medulla,

Múka, 1,

dumb,

 $\mu\nu\kappa o\varsigma$, mute, F. muet.

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MEANING.

SANSKRIT.

LATIN.

G. mond, Li. menú, F. mois, ueig, Go. menoths, Ga. uvια, midge, Li. musse, P. magas, G. mucke, R. mucha. , [mios. Go. mes, Li. miesa, $\mu a \zeta a$, G. mett, R. miaso, C. maeth. uασσω, Go. matia, Li. muczu, R. niyezu, G. mutze, muμισγω, Η. mezeg, A. masak, S. miscan, mixture. [tilate. μενω, R. maniu, ammunition, municipal, F. munition. undo, Go. modo, Li. mishju, R. mysliu, meditation. unvvo, G. mahne, mean, R. manui, monument. uoboc, Li. metu, G. mühe, R. metaui, motion. μυκαω, L. musso, mutter, G. muhe, Li. myczu. Li. maudau, μυελος, L. R. mytyi, medulla. More, mess, auerog, G. mähd, Go. maita, G. magd, Go. magaths, muliebrity. Li. merkui, F. merge, immersion. H. mot, mutation, F. mutabilite. μεθιημι, missile, F. missionaire. Li. menk, C. man, minikin. Mitigate, F. Mitiger. uaττω, F. monde. understand, comprehend, reciprocally, sprinkling, mosquito, ornament, woman, agitate, month, liquify, sound, friend, oppose, blend, flesh, little, cut, Mashaka, 5, Mṛishta, 6, Mánsa, 16, Mitra, 12, Mithas, 5, Misra, 70, Mand, 23, Mush, 26, Maņí, 29, Míta, 4, Más, 11, Medh, 6, Muj, 1, Mallá, Mid, 5, manth, Manák, Mash, Man, Mensis, Mancus, Miscere, Monile, Meditor, Mulier, Mugio, Mitis, Mutilo, Moneo, Mersio, Mundo, Mensa, Munio, Motus, Musca, Madeo,

Meto,

Muto,

Tables of Comparative Philology. 871												1 1								
COGNATES.	veog, annunciate. $veog$, H , nuang, nod , W , amneidio.	G. nase, Li nosis, R. nosada, nasal. [H. nakah.	L. noceo, vekvç, H. nákáh, vogoç, nick, A. nikayat,	G. neun, P. nah, R. noi, εννεα, C. naw, november.	W. nôs, Ga. nochd, G. nacht. Li. naktis, vvž, nocturnal.	ανεψιος, W. nai, R. netü, G. neffe, F. neveu, nepotism.	$\nu\eta$, H. ain, Ga. neo.	W. nev, Ga . neamh, G . nebel, C . niwl, $\nu\varepsilon\phi\circ\varsigma$, R . nebo.	νυμφη, nymph, connubial,	vvog, G. schnur, R. snocha.	Go. unsis, Li. mues, R. nas. [nyth.	νεοττος, S. nesan, ναιεταω, R. gnezdo, Ga. nead, W.	$ovo\mu a, G.$ name, $R.$ imie, $Go.$ namo, $P.$ nám, $Ga.$ ainm, $[S.$ nama-	Adorn, $\omega \rho a$, F. ornement. [atachk, Ga. aca.	оккос, G. auge, Go. auga, Li. akis, R. oko, F. œil, A.	ooreov, osteology, F. ossu, G. ast, Z. astem, P. astekhun.	oic, ene, Li awis, Ga. uan, C. oen, R. owen.	ωθεω, odious, F. odieux, oδυσσω	Ease, Go. azi, οκνος, εζομαι.	R. uste, L. os, ostiary.
MEANING.	sent, . bowed,	nose,	destruction,	nine,	night,	grandson,	not,	cloud,	virgin,	daughter-in-law,	us,	nest,	name,	cover,	eye,	bone,	sheep,	war,	seat,	mouth,
SANSKRIT.	Nunna, Nata.	Násá, 20,	Násha, 26,	Navan, 16,	Nakta, 28,	Naptá,	Navá, 1,	Nabhas, 28,	Nivará,	Snúsa,	Nah,	Níd, 2,	Nám,	U'rņu, 1,	Akshi, 10,	Asthi, 21,	Avi, 2,	Yuddham, 17,	A'sanam,	A'syam,
LATIN.	Nuncius,	Nasis,	Neco,	Novem,	Nox,	Nepos,	Neve,	Nubes,	Nubo,	Nurus,	Nos,	Nidus,	Nomen,	Orno,	Oculus,	Os,	Ovis,	Odium,	Otium,	Ostium,

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MEANING.

SANSKRIT.

LATIN.

child,

Ashtrama,

Octavus

Orbus,

Pastum,

Arbha,

G. erbe, ορφανος, F. orphelin, orphan. [Go. ahtan. октю P. hasht, C. wyth, Li. ashtum, R. osm, Ga. ochd [pasture.

Go. fodia, G. fütter, βοσκω, R. pastuch, H. ávas, Li. pezczias, P. pa, G. pfote, R. piata, πεζος, pedestrian. Go. fadar, P. pader, Go. athair, G. vater, R. batia. тотприог, patter, петаш.

Placid.

L. fluo, Li. plauju, G. fluss, Ga. fliuch, S. fleuwan. π s $\lambda\omega$, equi-pollent. Li. pas, Ga. foi, R. po, F. puis, postpone.

Li. pats, P. bud, ποσις, Go. faths, R. pan, potent.
L. prælum,
[R. proszu, P. porsad. Li. prasyatas, G. sprechen, Go. fraicha, φραξω, pray,

R. perwyi, G.fürste, Li. permas, Go. fruma, primitive. R. protiw, propinguity.

πωλος, poultry, F. pulluler.

P. pur, "auc, puerile, Z. potre. πευθω, Li. bundu, impute.

understand,

stinking,

purify,

beast,

pound,

arriving at, blossoming, Li. putas, πυεω, F. pus, putrid.

Go. faihu, G. vieh, Tww, Ga. beathach, pecuniary. G. butze, #vp, F. purifier, puritan.

L. pinso, πισσω, Li. paisau.

nourish, eight,

father, plate, foot,

please,

Páda, 106,

Pátra, 14,

Patera,

Pater,

Pitri, 42,

ush, 80,

Priya, 37,

Placere,

Polleo,

Post, Potis,

Pluo,

Bala, 17, Paschat, 4, Plu, 3,

army, after,

Pati, 14,

Prathama, Prachh, 4, Pralaya,

Prœlium,

Precor, Primus,

destruction,

master,

inquire,

first,

Budh, 35, Prapana, Phullati,

Putars,

Puer,

Pullus,

Prope,

utra, 25, Púti, 30, Pú, 35,

Purus,

Pistum,

Puteo,

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Cognates.	Ga. beg, C. bach, Li. piggus, G. feige, Go. faws, παυρος. Go. fulls, πλεος, plenitude.	L1. bijau, πτοεω. C. fisch, C. pysg, fish, Go. fisks, F. poisson, viscivorous.	πεικω, R. piszu, F. peins, paint.	11. Pagar. Go. fija, Li. pianjeo, L. pugna, $\pi^{\iota\iota\kappa\omega}$, G. fechte. naint.	Buloc, G. pfutze, pit, F. puit.	H. paras, party, F. partir.	G. pfuhl, πηλος, pool, S. pul.	π0ντος.	παρδος, G. parder, Li. pardas, leopard.	G. picker, F. pie.	Li. pellas, R. plew, F. paille, pallat.	φολις, G. fell, Li. plewe, R. pleua, C. pil, S. flys.	G. fahre, fare, Topoc, ford, import.	G. feste, $\pi \iota \varepsilon \zeta \omega$, R. pazu, post.	G. pfeile, $\pi \alpha \lambda \lambda \omega$, pill. [nacious.	chain, $\pi \nu \xi$, F , p	Go. bida, G. bitte, petition.	πεταω, H. pátháh, palent.	κοσός, Li. koks, R. kak, quotient.
MEANING.	low, great,	water,	colour,	kill,	hole,	cast,	pond,	sea,	leopard,	cuckoo,	straw,	shield,	cross over,	bind,	arrow,	killing,	recite,	thatch,	how many,
SANSKRIT.	Páyyas, Pulas, 14, Bhí. 55	Payas, 18,	Pij, 5, Pnebb	Pija,	Puḍ, 10,	Prithak,	Palwala,	Páthis, 7,	Pŗidáku,	Pika, 7,	Palla, 3,	Phalaka, 2,	Pára,	Pash,	Pílu, 2,	Piṇja,	Path, 5,	Paḍal, I,	Kati,
LATIN.	Parvus, Plenus, Paveo.	Piscis,	Pingo Pingo	Pungo,	Puteus,	Pars,	Palus,	Pontus,	Pardus,	Picus,	Palea,	Pellis,	Portus,	Postis,	Pilum,	Pugna,	Peto,	Patulus,	Quot,

COGNATES.	G. saft, R. sok, F. suc, suck, L. sunkiu. σκαζω, G. schiezze, shoot, Li. skecziu. G. sich, Go. seins, Li. sawas, R. swoi, εος, suicide. ερπω, F. serpent, serpent, W. sarf.	ερυω, service, σαοω, F . sauve. χ αλιξ, silicious. χ εκνρος, G 0. swaihra, L i. sessû, W . chwegran, G . schwa-		υπερ, Go. ufar, G. uber, P. ábar, superior. Satiale, R. syszczaiu, Li. sotinu, G. sättige, aδω. L. situs, L. se, Go. seithu, G. seit, R. s, sinecure. Satisfy.	$\eta\mu\iota$, F. semi, semi-god. [strew. $\sigma\tau\rho\alpha\omega$, L. stratum, G. strasse, Go. strauja, R. stroiu, $\sigma\chi\iota\zeta\omega$, G. scheiden, L.i skutta, Go. skaida, rescind. $\sigma\kappa\tau\sigma\varsigma$.	σπαργη, F. espoir, despair. G. surren, συρω. persuade, F. suasion. σεβεσθαι, severity, persevere.
MEANING.	sprinkling, jump, his, creep,	serve, stone, father-in-law,	sleep, sound, place, sweet,	above, finish, little, proper,	half, spread, tear, shield,	desire, sound, pleasing, pain
· SANSKRIT.	Sechana, Skand, 6, Swa, Sarpa, 28,	Seva, Shila, 28, Swashura,	Swapna, 13, Swan, 5, Sthiti, 40, Swádu,	Upari, 5, Sadh, Sanna, Sat,	Sámi, 3, Str.i, Khanḍa, 32, Khed, 2,	Sprihá, 5, Swara, 11, Swádu, Swri,
LATIN.	Succus, Scando, Suus, Serpens,	Servire, Silex,	Sopio, Sono, Statio, Suavis,	Super, Satis, Sine,	Semis, Sterno, Scindo, Scutum,	Spes, Surrus, Suadeo, Severus,

θίζις, Li. tíkumas, Go. tekan, R. tykaiu, take, F. toucher.

akew, tacit.

τυφω, Ga. tath, P. tábad, R. teplyi, F. tiede, tepid.

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MEANING.

SANSKRIT.

Stupidus,

Similis,

Serum,

Go. sitts, G. sitz, Li. sedziu, ¿ 80c, seat, R. sazu. Sight, G. sicht, L. sagio, G. schaue, show. [desiccate. Li. sauzau, L. siccus, σαυκος, R. suchii, C. sych, desiccate. G. satt, Li. sotus, R. sytyi, Go. sads, S. sadian, satiate. Li. spaustas, σπιονος, inspissate. C. sigu, saw, L. securis, insect, sex, C. sigu, R. sieku. G. spahe, Li. spigas, окотос, H. sháqaph, inspect. φλαω, file, Li. peloiu, L. pellis, R. peliu, G. feile. aλλομαι, Go. salta, F. saillis, H. hale. salient. στρυφνος, stiff, Li. stiprus, G. steiffe, θηπω. ηλιος, H. hálal, A. halal, R. solntse, solar. Li. sprogstu, σφριγαω, G. springe, spring. σκωλον, Go. skuld, G. schuld, Li. skelas. ayastos, L. castus, Go. gods, chaste. Li. segu, σασσω, F. socie, associate. othpov, opog, F. soir, soiree. paloc, H. semel, similar. L. stolidus, stultify.

Sais, Ga. doth. weariness, meeting, dry, 12, equality, swollen, wicked, evening spread, stupid, friend, cleave, move, silent, burn, dull, move, hurt, pure, Samatá, 550, Skhalana, 5, Spashya, 5, Sthúla, 40, Sáyam, 8, Sakhi, 6, Sphurchh, Súchi, 17, Sadas, 3, Shus.hka, Stambha,

Phal,

Spolio, Spargo, Sedes,

Scire,

Stultus,

Specio,

Socius,

Scelus,

Túshníka, 3, Shuddha, Twach, Fap, 34,

Sád, 6, Sphíta, Sagha, Shal, Spissus, Tactus, Sudus, Tœda, repeo, Satur, Salio, raceo, Sitis, Seco,

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COGNATES.	L. tener, G. dünn, C. tenau, P. tanak, H. táchan, R. to.	nok, ravaog, A. tanazzur, S. tiny.	τονω, S. thunar, P. tundar, G. donner	Go. thairh. G. durch. C. tros. R. ozrez. Go. thon	Go. thoreis. Li. trvs. P. seh. Told. B tri C tri c	G. deiner, R. twoi, Ga. do, Go. theins, Li. tawas, C. tan	W. dy. W. tarw, Ga. tarbh, G. stier, Go. stiurs, H. tor, A. taur.	$\tau \alpha \nu \rho \rho \rho \varsigma$. G. decken, C. techu, $\tau \varepsilon \gamma \omega$, Li. dekis, Ga . tigh, W. tv.	G. dach, R. dek, retxoc, S. thecan, protect.	1, ταλαντον. C roll for E colored		TERMIN Co thank G dohn and n	Turnid contains, O. Welline, tends, R. Hanu, Lr. tesiu.	Thy 1800 materiate		TO OUT OF THE PRINTED COMMENT OF 3.3	G duldo Co thule Talker, U. at 12 2.	G. dammern, Li. tamsinu. R. temnost, dim. P. dihms.	
MEANING.	thin,	earth,	thunder,	across,	three,	thon,	bull,	cover,	wound,	gold measure, 14,	top,	expansion,	censure,	like,	guard,	terror,	weigh,	darkness,	thirst,
SANSKRIT.	Tanu, 71,	Dhará, 15,	Stanyitnu, 2,	Trí,	Trayas, 160,	Tvam,	Túvara,	Twach, 8,	Tud, 30,	Tulá,	Tarman,	Tanti, l,	Tarjat, 3,	Tulya, 8,	Tej, 2,	Trása, 8,	Tul,	Tamas, 23,	Tṛish, 11,
LATIN.	Tenuis,	Terra,	Tonitru,	Trans,	Tres,	Tuus,	Taurus,	${ m Tego},$	Tundo,	Talentum,	Terminus,	Tentam,	Turget,	Talis,	" Tueor,	Terreo,	Tollo,	Tenebræ,	Torreo,

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87	8 Tables of Co	mparative Philology.	[No. 142.
COGNATES.	τενδων, τομειν, tonsure, F. tonsure. Tumultuous, L. tumes. ταλάν. τρεμω, tremor, F. tremble. τρυω, intrude. τρυν, truncated, G. drücke, Li. drozu. θορυβος, disturb, G. trübe, F. trouble. τονος, G. töne. F. tonne, intonation.	nως, avω, combustion, H. esh, ashes. ovθaρ, G. euter, udder, R. utroba. εις, Go. ains, G. einer, one, R. odn, Ga. aon, C. un, S. εργον, work, urgent, G. werk. G. oder, either, R. ieter, ετερος. F. ombre, umbrageous. apκος, apaσσω, P. khirs, F. ours. vω, Go. wato, Li. wandu, inundate.	 av, Go. un, Ga. an C. an, ανευ, G. ohne, L. in, R. wnie. ουρον, urinal. οθω, use, F. use. Εbáqaq. οιχομαι, G. weiche, Go. wiko, F. vaque, L. vaco, H.
MEANING.	cut, uproar, bottom, move, break, hurt, injure,	burn, belly, joined, effort, whether, cloud, a bear, water,	not, water, persevere, separate,
SANSKRIT.	Tuḍ, Tumula, Tala, 8, Dram, Trut, 5, Tṛih, Thurv,	Ushnam, 42, Udara, 13, Anwita, 1, Urja, 7, Yatara, Abhram, 10, Riksha, 2, Uda, 43,	An, 217, Vári, 40, Yat, 8, Vich, 20,
Latin.	Tondeo, Tumultus, Talus, Tremo, Trudo, Trudo, Trubo,	Ustus, Uterus, Unitus, Urgeo, Uter, Umbra, Ursus,	Un, Urina, Utor, Vacuo,

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COGNATES.	ελω, Go. wilia, will, R. woliu, G. wahle, Li. weliju. ειλω, wall, L. vallus, G. wohl, C. gwell, R. waliu. υδης, φατις, vaticinate, W. barth, Ga. bard, H. parat.	i, L. via, Li.	$a\eta \mu \mu$, Go. unna. [C. gwynt, Go. wind. $a\eta \tau \eta \varsigma$, G. wind, Li. wejas, P. bad, Ga. gaoth. Go. weith mand solon, P. werzen	G. watte, \(\varepsilon\rho\), weed, Go. wasti, F. veste, vesture. Victory, L. victima, F. victoire.	G. weiss, wit, C. wyddus, wizard, ιστωρ, R. wiedee. L. viduus, ιδιος, Go. authis, S. weodues, G. óde, P. biwa.	Li. pillis, Ga. baile, F. village, villa. Li. weju, $t\tau \in a$, R. wiiu. [S. wær, Li. wiras.	C. wraig, Go. wair, Ga. fear, G. wehren, mar, H. gavar, L. herba, verdure, Xoproc, F. verdure, H. phera.	βιοτη, vital, P. ziád, F. vitement. W. byw, Ga. beo, Li. gywas, βιος, revive.	$\eta \chi^{\epsilon \omega}$, G. wasche, F. voix, R. weiszczaiu, invocate. $\epsilon \rho \rho \omega_{00}$, S. bar, R. barov, A. varaz P. baret.	πατεω, wade, οδευω, Go. itho, G. wate. ελω, Go. wilwa, revulsion.
MEANING.	choose, cover, a sage,	or, carry,	wind, turning,	cloth, defeated,	know, widow,	village, weave,	hero, green,	exist, life,	speak,	foot, divide,
SANSKRIT.	VII, Val, 17, Bhaṭṭa, 33,	Vá, Vah, 19, Von 1	Váta, 1, Váta, Varta, 20,	Vastra, 18, Vijitus, 6,	Vid, 109, Vidhava, 2,	Palli, 2, Ve,	Víra, 35, Harita, 20,	Vid, 109, Jív, 53,	Vách, 34, Váráha, 5,	Pad, Vil, 1,
LATIN.	Volo, Valeo, Vates,	Ve, Veho,	Ventus, Verto,	Vestio, Victus,	Videre, Vidua,	Villa, Vieo,	Vir, Viridis,	Vita, Vivo,	Vox, Verres,	Vado, Vello,

880	Tables of C	Comparative Philology.	[No. 142.
COGNATES.	εμεω, Li. wemia, H. phum, emetic. εσπερος, vespers, R. vetcher, F. vesperie. Go. wairtha, reverse, L. verto, S. færs. R. wetchü, F. vieux, inveterate, ετος, Ga. eata, L. ætas. υγιαινω, L. veges, Go. waka, G. wache, wake. Li. wiernas, Ga. fearr, G. wahr, R. wierny, C. gwir, verity. Worry, Li. wilkas, G. würge, H. bagyar, βορα, S. worigeh.	 εραω, Go. weria, G. ehre, R. wieriu, reverence. Variety, F. variant. νταλος. Waste, αταω, G. wüste, F. devaste. H. bekeh. οικος, Go. weihs, Li. wissas, vicinity. οχεω, L. vacilla, rvag, G. wacklen, F. vague. Volcano, αλεα, 	 Go. wio, G. woche, R. wiek, vicissitude. [virtuel. αρετη, G. werth, Go. wairtha, Ga. feart, virtuous, F. εννις, Go. wans, G. wahn, Li. wienas, ανευ, vanity. G. zwanzig, R. dwadesiat, Ga. fichid, C. ugain. Li. wyrene, C. wraig, virgin, F. virginal.
MEANING.	vomit, vapor, verse, gone, active, excellent, take,	select, color, calf, injure, cry, dwell, go, fire,	interval, excellent, less, twentieth, woman,
KRIT.	(a, 7, 8), 14, 14, 14, 8, 2, 8, 2, 8, 9, 8, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9,	3, 49, 3, 2, 4, 4,	2, , ati, 3,
SANSKRIT.	Vámita, 7, Váspa, 8, Vritta, Víta, 14, Vij, 2, Varyas, 2, Vritka, 8,	Var, Varn.a, 49, Vatsa, 17, Vast, 3, Vásh, 2, Vish, Vag, Ulká, 4,	Vich, 2, Vṛitya, U'na, Vinshati, 3, Vṛrá,
LATIN.	Vomitus, Vesper, Versus, Vetus, Vigil, Verus, Vorax,	Vereor, · Vario, Vitulus, 7, Vasto, Vagio, Vicus, Vago, Vago,	Vicis, Virtus, Vanus, Viginti, Virgo,

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COGNATES.	aκις, L. acus, G. axt, οξυς, S. acse, Li. aseia. F. allée. C. allan, αλλος, G. ander, Li. anas, εννεοι, G. hinter. S. arreme.	ov, L. ve, R. wy, ov χ^{ι} , $\varepsilon\iota\mu\iota$. $\alpha\chi^{\circ}$ 9, G. ach, C. och, S. ace.	βεκκος, P. pazad, Ga. bacalta. G. backen. S. bad, βαπτω, Ga. baidh, R. banya. T. ωχος, L. posco, Li. bedzius, R. ubogi. Go. bats, G. besser, P. bahtar, S. betre. L. peto, Go. bidia, S. biddan, Ga. bita, W. gwed. βιαζω, F. butin, G. beute. L. polleo, G. bald. βρνω, L. burrio, G. brause, F. bruis. φρατηρ, L. frater, S. broder, βρνω, G. bruder. οφους, S. browa. Ga. bruach.	πολιος, L. palleo, Li. baltas, R. bielyi. Bait, φαζω, L. fodio, G. beisse, F. fends, A. bit, S. bita. L. pandus, S. bendan, P. bandan.
MEANING.	edge of a sword, row, other, monkey, arrow	from, pain,	cooked, the sun, bathe, exist, begging, excellent, speak, soldier, army, speak, brother,	eyenow, grey-haired, split, bowed,
SANSKRIT.	Ashri, A'vali, Anyatara, 28, Kapi,	Ava, Agha, 5,	Pakwa, Bhaskara, Vád, 4, Bhú, 127, Bhikshá, 17, Bhadra, 22, Vad, 2, Bhata, Vala, 5, Brú, Bhrú,	Palit, Bhid, Bhugna,
English.	Ax, Alley, Another, Ape,	Away, Ache,	Bake, Bask, Bath, Be, Beg, Better, Bid, Booty, Bold, Bray, Brother,	Bald, Bit, Bend,

	Tables of Comparati	we Philology.	No. 142.
Cognates. παρθη, L. parta, Go. braths, G. braut, F. bru. πεδαω, F. pedio, Go. bandi, G. binde, P. bandah, H.	abhnet. πατεω, βακτρον, L. batuo, Li. badau, R. bodu, C. ba- βηκον, G. bock, C. bwch, buck, F. bouc. βληχαω, L. balo, G. blöke, Li. blauju, R. bleiu. πτυσσω, C. bachu, πυξ, G. bogen, Go. biuga. L. frango, Go. brika, G. breche, πρίζω. L. fulgeo, φλεξω, Li. blizgu, S. blase. L. pestis, G. bös, Li. beda, R. bies, F. pis, S. beado, P. G. bhühe, φλαω, L. flo. Go. brikan.	 L. carpo, καρπίζω, G. kerbeen, Li. kerpu. χαω. καπτω, F. champayer. L. cantus, accent, C. canu, Ga. canam, W. kan. γνρωμα, S. cerene. I. caleo, G. kohle, S. col, H. gachel, La. gual, R. ugol. κομεω, Go. quima, G. komme. 	L. casa, hut, C. cwtt, kotrn, $\kappa \varepsilon \upsilon \theta \omega$, Ga . cot. G. kuh, L. ceva, P. gav, S. cu, H. gagyah, Ga . ceo.
Meaning. wife, fasten,	oppose, goat, speak, bend, fall, shine, give pain, flower, break,	eat, L carrindistinct sound, $\chi \alpha \omega$. eat, $\kappa \alpha \pi \tau \omega$ song, L can grind, $\gamma \nu \rho \omega \mu$ black, L . cale go, $\kappa o \mu \omega \omega$	house,
Sanskrit. Bhárjyá, Bandha, 25,	Bádh 7, Bukka, Valh, Bhuj, 33, Bhrash, Bhlásh, Vádh, Phull, Bhanj,	Charv, Káváda, Cham, Gána, Chúrna 15, Kála, 86, Gam, 18,	Kuti, 24, Gao, 112,
English. Bride, Bind,	Beat, Buck, Bleat, Bow, Break, Blaze, Bad, Blow, Bang,	Carve, Caw, Champ, Chant, Churn, Coal, Come,	Cottage, Cow,

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COGNATES.	κοραξ, L. corvus, G. krähe R. gracz. S. cud, chewed. γενυς, G. kinn, Go. kinnus, P. chánah. L. curro, χωρεω, chair, S. cyran, car. κυλιξ, L. calix, F. calice, S. calie. γνρος, S. cyrran. κοσμος, L. comis, S. cweman. F. cueillir, collect, λεγω. F. acheter, S. cetta. L. gelu, G. kalt, L. szaltas, chill, F. gele, R. cholozu. L. quatio, G. kutte, C. cadu, R. kroiu, Li. kertu, card. καχαζω, L. cachinnor, G. kichele. R. chikaiu. G. krähen, C. criu, L. queror, καρνω, F. crie. L. carpo, G. kerbe, καρπίζω. κοπτω, G. kappe, F. coupe, Li. kapoiu, R. kopaiu. καμηλος, G. kamel, L. camelus, F. chameau, H. gámál. C. cok, κικκος, G. göckel, R. koczet. κοκκυξ, G. guckuck, L. cuculus, R. kokuszka.	G. sinne, κηνσος, censure, H. kásas. κυφος, G. kufe, C. cib, L. cymba, coop, R. kub. ζηρος.
MEANING.	crow, eat, jaw, go, water jar, lock of hair, beautiful, gather, rogue, cold, cut, cough, laugh, sound, weak, pound, camel, cock, cuckoo,	calumniate, bottle, burn,
SANSKRIT.	Karata, Kdu, Hanu, 5, Char, 24, Kalasha, Kurula, Komala, 3, Khal, Cháṭa, 4, Jala, Kvit, 4, Kása, 6, Kakkh. 2, Kur, Krip, Chap, 2, Kramela, Kurkuta, 2, Kukuta, 2, Kurlkuta, 2,	Dhwans, 6, Kúpí, 3, Chur,
ENGLISH.	Crow, Cud, Cud, Carry, Chalice, Cull, Cool, Cough, Cough, Cut, Covgh, Cut, Covgh, Cut, Covgh, Cut, Covgh,	Censor, Cup, Char,

00	1 avies of Compar	rative Philology.	[No. 142.
COGNATES.	 δαμαρ, L. domina, F. dame. G. theile, R. dieliu, Li. dallyiu, Go. dailia. θυμος, G. dampf, Li. dussa, τυφος. Go. dar, G. traue, Li. drystu, R. derzai. θυγατηρ, Li. dukti, P. dokhter, G. tochter, R. docza. θανω, Go. dauths, G. todt, Ga. todhas, R. dad, S. dydan. θλαω, G. theil, Li. dalis, C. tylla, dole, S. dælan, Ga. dailim, H. dal. L. dubius, F. doubte, Ga. dubhátai. τρεπω, L. trepido, Go. drieba, G. treibe. C. degga. F. dungo 	S. dust, Ga. duust. F. dompter, L. domitare, δειματοω. Gαζομαι, H. dush. G. dämmere, L. tenebræ, S. dim, P. damah, Ga. deimhe, S. drua, Ga. druidh. δυπω, G. taufe, S. dippan, dive, R. topnu, dip. C. tád, W. tát, τεττα, L. tata, L. tewas, R. tiatia, EH. dod.	G. ende, Go. andeis, S. ende. L. ovis, οίς, Ga.avi, R. ovtsa, ovation, S. eowa. [oculus. G. auge, C. aug, Go. augo, R. oko, S. eage, ανγη, L.
MEANING.	wife, division, smoke, confident, daughter, kill, divide, two ways, move, milk,	decent, dust, subjection, hurt, darkness, wise, sprinkle, father,	final, sheep, eye,
SANSKRIT.	Dam, Dal, Dhóma, 22, Dhrish, 11, Duhitri, 2, Tud, Dal, 25, Dwaidha, Tarv, Dugdha, 13,	Tústa, Tústa, Dánta, 2, Dásh, Tamas, 30, Dhíra, 14, Tip, Táta, 5,	Anta, 37, Avi, 2, Akshi, 10,
ENGLISH.	Dame, Dale, Dale, Damp, Dare, Daughter, Dead, Doubt, Diive, Dung,	Dust, Daunt, Dash, Dim, Druid, Dip,	End, Ewe, Eye,

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COGNATES.	$\epsilon \omega_{\mathcal{C}}$, S. eost, Ga. heos, G. ost. G. ebung, Ga. e, yea, R. ei, G. ja, L. jam, Go. ja	 φεριστος. S. fif. L. pente, P. punge, R. pyate, C. pump. G. fliehen, πλεω. πλωτος, G. flüss, Ga. fliuch, R. plywre, Li. plauju. πωλος, Go. fula, S. fula. φοιταω, S. fot, Ga. fuidh, G. pfote. S. fedh, foe. πορρω, S. feor, Ga. fatt. L. vannus, winnow, R. vieyanie. βαλλω, G. fellen, H. yipel. S. findan, G. befinden. S. fam, L. fumus, θνειν. κτω, L. cio, Go. ganga, G. geh. χλιω, G. geil, P. shed, L. hilaro, S. glæd. Glee, S. gligge. S. glomang, L. lumen. κτω, Go. ganga, L. cio, G. gehe, R. chozu, W. camu. χραω, L. quæro, G. gehre, Go. gredo, Li. gardus. L. gravis, F. grave, R. pogebraue. χραω, G. griften, P. gériften, Go. gripan, S. gripon, F.
MEANING.	day break, even,	before, five, retreat, plunge, cherish, foot, war, end, wind, split, find, froth, gone, delight, exhausted, languor, go, heavy, seize,
SANSKRIT.	U'shá, 42, Iva,	Purastát, Panchan, 100, Paláy, 20, Pluta, Pal, Pad, 106, Yudh, 17, Pára, Váyu, Phal, 1, Vind, 1, Phena, 11, Gata, Hlád, 3, Gláyat, Gláyat, Grán, 6, Graurava, 33, Granh, 78,
English.	East, Even,	First, Five, Five, Five, Flood, Foot, Foot, Feud, Far, Fan, Fill, Find, Glad, Glout, Glout, Go, Greedy, Greedy, Greave,

000	Lastes of Comparatives Flowers, gr
COGNATES.	L. grunnio, S. grennian. L. collum, G. kehle, L. gula, P. galu, R. glotaiu. L. collum, G. kehle, L. gula, P. galu, R. glotaiu. χνσαι, G. giessen, H. gáash. κασθεις, L. castus, S. god, G. gott. κασθεις, L. castus, S. god, G. gott. L. gurges, γαργαρεων, gurgle, G. gurgel, R. gorlo. Go. gatwo, G. gasse, R. chod. G. gross, S. great. S. grist. S. grist. S. grist. L. apiscor, G. haben, S. habban. Go. hairto, G. herz, Li. szirdis, καρδια, R. serdce, Ga. κτω, L. eo, S. hiegan. L. eho. Ga. each, P. asb, G. ross, Li. azwa, tκκος, F. hacque, F. heurter, S. hyrt. L. ictus, Go. hiitte, R. kutain, C. cuddiu, L. casa, Go. L. ictus, Go. hintha, κεντεω. aιθος, G. heiss, L. æstus, Ga. aodh, C. ete. L. cutis, σκντος, G. haut, coat. στζω, S. hircean.
MEANING.	deep sound, throat, eat, sprinkle, pure, burning, throat, ghat, sufficient, ground, hall, obtain, heart, move, ha, horse, pain, house, struck, blazing, body,
SANSKRIT.	Garjana, 8, Gala, 11, Gras, Ghas, Shudh, 18, Jwal, 14, Kṛika, 8, Ghaṭṭa, Kṛita, Ghrishta, 4, Shálá, 9, A'p, 8, Hṛid, 27, Hay, 1, Há, Ashwa, 50, Aṛdati, 1, Kut, 1, Kut, 1, Kuti, 1, Kuti, 35, Hása, 8,
English.	Grunt, Graze, Graze, Grash, God, Gow, Gorge, Gate, Great, Hall, Hall, Have, Heart, Hit, Hit, Hit, Hit, Hit, Hits,

	_	- 4			,
COGNATES	F. harer, S. hergian. κορων, G. hassend, Go. hatands, F. hais, ατη, S. ade. κορωνη, L. cornu, Go. haurn, G. horn, H. qeren. G. hand, Go. handus, P. dast, G. tasten, χλιω, ιλαρος, L. hilaris.	E^{ν} , L. in, Go. in, G. in, Li i, C. yn. L. id. $u \chi \omega$, G. juchze, Li jukin, L. jocor, F. joue, H. tsáchak. Gibberish, P. ghab, S. gabban. $\gamma \eta \theta o \varsigma$, L. gaudeo, Go. kiusa, F. gai, H. tsáhal.	σκεπω, cap, L. capio, $G.$ hebe, $Li.$ kaupoiu, $R.$ kopliu. $κνω, Go.$ kukia, $W.$ cusanu, $G.$ küss. $νεω, L.$ nodus, $net, C.$ neut, $R.$ nit, $G.$ naht, $S.$ gnittan. $Go.$ kuni, $Li.$ gymis, $kind.$	χαλαζω, L. laxus. λιαζω, lose, Go. liusa, G. letz, R. liszaiu, Li. liekmi. λειχω, L. lingo, Go. laigo, G. lecke, Li. lezu, R. lizu, Ga. lighau.	Go. laika, L. leger, G. leicht, R. letaiu. S. loc. λευσσω, W. lhvgad.
MEANING.	seize, violence, horn, hand, dally,	within, it, laugh, mutter, pleasure,	hide, embrace, bind, mankind,	idle, lessen, lick,	ight, joined to, see,
SANSKRIT.	Hṛi, 7, Haṭha, 4, Shringa, 10, Hasta, 11,	Ni, Etad, Jaksh, Jap, 14, Jush, 5,	Gup, 35, Kush, Nah, Jana, 95,	Alasa, 4, Leshi, 5, Lih, 6,	Lagna, Lok, 9,
ENGLISH.	Harry, Hate, Horn, Hand, Hilarity,	fn, It, Joke, Jabber, Joy,	Keep, Kiss, Knit, Kin,	Lazy, ices, ick,	Lock, Look,

[meshe.

C. mon, L. mas, G. mensch, R. muz, Go. manna, Z.

иатта, G. matte.

uεθυ, metheglin, W. medh, G. meth, C. medd.

ομιλια, S. male, R. meliu.

S. mare, L. major, Ga. mor, Z. mae, A. emir, W. mawr.

L. materia, F. materiel. Go. maevi, G. magd.

μαραινω, L. mori.

uvδaω.

uερος, F. membre.

female,

Marman, 5,

Member,

unv, Ga. mios, R. miesiac, Li. menu, G. monath.

uενοιναω, G. meinen, Ga. mien, R. mniu, A. manwi.

COGNATES.

MEANING.

SANSKRIT.

ENGLISH.

Li. luppu, $\lambda \epsilon \pi \tau \sigma \varsigma$, $\lambda \omega \beta \eta$, R. lupliu. [P. laheb. G. liebe, S. luvian, R. liubliu, $G\sigma$. liebia, Li. lubiju, Goose. λειοω, L. laxo, Go. lausia, Li. lauzu, R. lozzu, G. löse, λαυω, L. lætor, Go. lusto, G. lüste, S. lust, P. lustan. L. lacus, G. loch, C. llwch, R. luza, lough, F. lac. Go. leiks, like, Nikoc, G. lich, Li. lygus. Li. luppu, $\lambda \varepsilon \pi \tau \sigma \varsigma$, $\lambda \omega \beta \eta$, R. lupliu. λευκος, G. glücke, lucky. G. laufe, Go. laupa. F. levain, leaven. λιλαιω. approach, embrace, fortune, desire, desire, mark, salt, cut, cut, Lavana, 4, Luch, 11, Lakshmí, Lal, 41, Lubh, 7, Lush, 9, Lup, 20, Lak, 1, Lása, Leaven, Love, Loose, Luck, Lust, Leap, Lake, Loll, Like,

ntoxicate, substance, greater, month, dying, mind, man, mix, fool, Mánusha, 11, Madhu, 32, Mahattara, Marana, 2, Mása, 11, Mad, 67, Mátrá, 2, Mahilá, Mṛid, Man, Murrain, Matter, Month, Mead, Meal, Mean, More, Mud, Maid, Mad, Man,

MEANING.

SANSKRIT.

ENGLISH.

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G. mund, Go. munths, F. museau, µvr1¢, S. median. Go. marka, G. mark, Li. miera, C. marc, R. miera,	μερος. μυλη, L. mola, G. mühle, Ga. muileann, C. melin, R. G. marschirn, F. marcher. L. masculus, F. masculin, Meet, μετα.	ovvč, G. nagel, Li. nagas, P. nakhan, L. unguis, R. nogot. L. nudus, Li. nogas, Go. naquaths, G. nacket, R. nagü. Go. nasia, L. niteo, G. nett, F. net. Gu nach, Go. nehwa, C. nessu, L. nexus, νηθω, L. no. W. na. νη, L. ne, G. nein, Li. ne, Ga. nach, G. nicht, P. nah, R. ne, S. no. G. nase, Li. nosis, R. nos, S. nez, S. næse. L. nunc. Go. nu, Ga. nois, ννν, R. nynie, P. nun, S. nu. κνωσσω, νενω, L. nuto, W. amneidis. ομφαλος, G. umbo, G. nabe. G. nieder, Li. nú, R. niz. G. nabel, ομφαλος, F. nombril, L. umbelicus, P. naf, Ga. nead, C. nith, ναος, G. nest.	S, are, L , aro.
mouth, limit,	grinding, go, man, associate,	nail, naked, shine, join, not, no, nose, now, shake, wheel, low, navel,	rudder,
Mukh, 36, Maryá, 1,	Malana, March, Mála, 1, Mith,	Nakha, 27, Nagna, 9, Nad, 1, Nah, 2, Ná, 11, Nix, 281, Násá, ° Nu, Nata, Nábhi, Nícha, Nícha,	Arittra,
Mouth, Mark,	Mill, March, Male, Mate,	Nail, Naked, Neat, Nigh, No, Nov, Nose, Now, Nod, Nave, Neath, Navel,	Oar,

890	Tables of Comp	parative Philology.	[No. 142.
Cognates.	 O. O. o. o. v. unus, unity, F. un. F. eaux, S. wæz. H. auts. S. oder, F. autre, L. alter, H. âdar. ετερος. S. oter, L. lutra. L. super, Go. ufar, H. âvar. L. ulula, ολολυγων, G. eule, howl. W. ych. Ga. agh, L. vacca, Co. auhs, G. ochs S. oxa. οπιον, P. afiun, οπος. S. ut, ωθεω. 	πεταω, F. passer, L. passus. πλυνειν, F. plonger. φραστωρ, F. precor, G. sprechen, R. proszu, Li. praszau. S. prude. ποτος, poltage. F. pousser. L. fruor, S. præd. L. fruor, S. præd. L. fruor, W. pawen	3. pfad, R. put, ile. . pfand, Li. pan πτισσω.
MEANING.	O! person, sprinkle, other, water, above, owl, ox, opium, posterior,	move, submerge, asking, arrogant, vessel, rear, satisfied with,	the nand, road, heap up bet, grind,
SANSKRIT.	Háh, 5, Jana, 95, Ghas, Itara, Uda, Upari, 5, Ulúka _k Ukshan, 2, Aphena,	Pes, Plu, Prárthana, Pradhrishta, Puta, 7, Push, 1, Príta, 11,	rain, Pathin, 9, Pul, Paṇa, 13, Puṇd,
English.	Oh, One, Ooze, Otter, Otter, Over, Owl, Ox, Opium,	Pass, Plunge, Prayer, Proud, Pot, Push, Pretty,	raw, Path, Pile, Pawn, Pound,

Cognates.	Go. quitha, L. cedo. L. culmus, P. kalam. \(\gamma^{\pu\nu_1}, C. \text{cena}, Go. \text{quens}. \) G. onicke Go. quens.	 L. rabies, G. rasen, ραγα, H. ragan. F. rever, L. rabies, G. rufe, R. rewu, ροιβδος. S. redan, ραζω, Go. rodia, G. rede, R. reszezi, C. reithu. L. russus, G. roth, Li. ruddas, Ga. ruadh, C. rhuddh. 	L. regnum, F. regne, H.raåh. S. regn. [ερευθος, R. rumen. ριζα, L. radix. ρυσσος, L. raucus, G. rauli. F. rauque, rouch.	L. ros, ερση. Go. rika, Ga. racham, ρογεω, G. reiche, P. rasad. L. radius, F. rayon. G. reihe.	ραινω, G. rinnend, Go. runnans. R. rownoi. S. sac, G. sache. αμα, Go. samo. G. saum, S. seam.	Li. sutas, L. satus, Go. saija, G. sae, R. sieiu. Go. si, S. seo, R. ta. F. signe, L. signum, σημειον, S. segeu.
MEANING.	say, reed, female,	passion, noise, speak, red,	sovereign, root, harsh,	flavor, obtain, ray, line,	oozing, friend, similar, limit,	sew, she, sign,
SANSKRIT.	Katha, 20, Kalama, 3, Jáni, Shak. 14.	Rajas, Ráva, Rádh, 2, Rohita, 4,	Rájan, Rad, 10, Ruksha, 2,	Kasa, 53, Rag, Ruchi, Ráji, 2,	Kiṇa, 2, Sakhi, Sama, 550, Siman,	Svana, Sá, Sajuná,
ENGLISH.	Quoth, Quill, Queen, Quiek.	Rage, Rave, Read, Red,	Reign, Root, Rude,	Kacy, Reach, Ray, Row,	Kun, Sake, Same, Seam,	Sew She, Sign,

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COGNATES.	L. soror, Go. swistar, Li. sessû, R. sestra, C. chwaer, G.	S. spekan. [sch wester.	Go. sunus, G. sohn, Li. sunus, R. syn, 1715.	G. scherer, Li. skirras, ξυρος, κουρευς, S. sunu.	L. specio, G. spähen, Li. spegas, $\sigma \kappa o \pi o \varsigma$, F. espion.	G. stelle, στελλω, Li. stelloju, R. steliu.	στενω, G. stohnen, Li. stenu, R. steniu.	L. summus, F. somme, G. sammle, $\sigma \nu \nu$, Go. sama.	1805, L. sudor, G. schweiss, F. sueur, seethe.	ηδυς, G. süss, L. suavis, Li. saldus, R. sladok, W. chwys.	$\sigma \alpha \kappa \chi \alpha \rho$, L. sachharum, P. shakar, G. zucker.	Li. sunkiu, L. sugo, G. sauge, P. chusad, R. sosiu, II.	σκωρ, G. schur.	γαραττω, S. sciran εσγαρα.	S. suht, P. setoh.		W. huyl, Ga. séol, S. sæglian, A. sayl. [H. sak.	σαγη, L. saccus, Li. sakas, C. sach, R. sak, G. sack,	στυμος, L. stipes, Li. stambas, R. stebel, G. stab.	στει β ω, L. stipo, G. stopfe, Li. stimpu, R. stupaiu.	weg, S. senwe.	Sore, Go. saurgan, S. sorgian.	
MEANING.	sister,	voice,	son,	razor,	see,	place,	groan,	whole,	sweat,	dainty,	sugar,	drip,	scratch,	scar,	exhaustion,	broth,	move,	clothed,	stalk, 13,	obstruct,	muscle,	pain,	vinous liquor,
SANSKRIT.	Swasri,	Vách,	Súnu, 3,	Kshura, 11,	Spasha, 5,	Sthala, 10,	Stan, 2,	Sama,	Sweda,	Swadu, 20,	Sharkará,	Sechana,	Kshur,	Khárí,	Sáda,	Súpa,	Sel,	Sajja,	Stambha,	Stbha, 2,	Snáyu,	Swri,	Suráp,
English.	Sister,	Speech,	Son,	Shear,	Spy,	Stall,	Stun,	Sum,	Sweat,	Sweet,	Sugar,	Suck,	Scour,	Scar,	Sad,	Soup,	Sail,	Sack,	Stem,	Stop,	Sinew,	Sorrow,	Syrup,

18	843.]					Ta	bles	of	Co	om	var	ati	ve	Ph	ilol	ogy.					893
Cognates.	S. svellan.	F. sire, L. senior.	G. sonne, Go. sunna, R. solnce, C. huan.	L. sorbeo, A. sariba. ροφεω.	G. schmiele, R. smieu, μειδαω.	σκεδαω, G. schade, Go. skathia. Li. skanstn.	Go. snaiwa, G. schnee, Li. snegas, Ga. sneachd, R. snieg,	$\nu\iota\xi$, L. nix.	συς, L. sus. G. sau. R. swinia. W. hweh	G. stane, orvw.	Go. setho. G. saat. C. had oftw. Li. sein	G. schale, shield, oxvloc.	G. stier. Go. stims rangos.	L. called W. call. $\sigma \propto 0 \lambda n$.	atun, S. stome	irno, W. seren, G. stern, P. s	au arepsilon ho n v, L, tener. S. teeran. P. tarakidan. R. deri.	τιτθος, W. teth, S. tit. F. teton.	G. das, 70 Ga. so, H. so.	τερσια, G. durst, Li. trokstu, P. tarzad, L. torres.	Ga. tu, R. ty, G. du, C. ti, P. tu, ov, Li. tu, rv, Go. thu.
MEANING.	expand,	respect,	san,	drinking spirits,	smile,	destroy,	oozing,		hog	crowd,	bringing forth,	thatch,	bull,	versed in,	moisture,	star,	on]].	beloved,	it,	thirst,	thou,
SANSKRIT.	Sphul,	Sri, 52,	Súnu,	Suráp,	Smi, 3,	Skhad, 2,	Snav, 2,		Shúkara,	Styai,	Súti, 7,	Chála,	Sthira,	Shíla,	Stema,	Tárá,	Drí.	Dayita,	Tad, 40,	Trish, 11,	Twam,
English.	Swell,	Sir,	Sun,	Shrub,	Smile,	Scathe,	Snow,		Sow,	Stow,	Seed,	Shell,	Steer,	Skill,	Steam,	Star,	Tear,	π Teat,	That,	Thirst,	Thou,

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COGNATES.	ταζω, F. tasser, θεωσαι.		Spvg, Go. triu, R. drewo, Ga. doire, C. dar.	G. durch, S. durr.	Sapoe, Go.trigws, G. treu, L. durus, G. daure, C. tariu.	G. tone, din, L. tonus, C. ton, Sovew.	$\theta \iota \gamma \omega$, L. ictus.	Go. thatro, G. dar, S. dær.	G. denke, Go. thankia, Li. dingau.	L. vannus. F. vanne.	$\varepsilon \rho \iota, F. \text{ vrai.}$	φαυλος, F. vil, L. vilis, H. hevel.	Go. ufar, Da. over, Swe. ofre, $v\psi\iota$, G. auf, up , S. uppa.	oυθαρ, L. uterus, S. uder, L. uber.	G. wesen, S. wesan.	$v\phi a\omega$, web, G. weben, L. opus, P. bafad, L. vibro.	oυλων, I. valeo, G. wohl, R. welü, C. gwell.	εδνα, S. wedian.	S. hvæt, Go. was, L. quid, H. hua. [waliu, Li. welu-	S. hweol, ειλεω, L. volvo, Go. walwia, G. walle, R.
MEANING.	throw,	the other,	tree,	pass,	fixed,	tune,	cover,	there,	meditate,	wind,	much,	vain state,	above,	belly,	abiding	weave,	cherish,	wife,	what,	circle,
SANSKRIT.	Tas,	Tatara,	Taru, 20,	Tŗi,	Dhruva, 3,	Tána,	Twach, 8,	Tatra,	Dhyáta, 5,	Váyu,	Bhúri, 6,	Vilaksha,	Upari, 4,	Udara, 13,	Vása,	Vap, 16,	Válita,	Vadhuká,	Yad, 48,	Gola,
English.	Toss,	T'other,	Tree,	Through,	True,	Tune,	Touch,	There,	Thought,	Vane,	Very,	Vile,	Upper,	Udder,	Was,	Weave,	Well,	Wed,	What,	Wheel,

04	ə. j	<u>ج</u>	ina.	es oj	Cu	mp			t 1	16.66	i i	<i>99</i> •				- :		wit.
COGNATES.	 L. vitta, Go. winda, G. winde, nind. S. gewing, L. pinna. Wit, ειδω, Go. wait, R. wizu, C. wyddu, Li. wystu. 	G. heische, Li. jeszkau, Go. weiha, P. az. L. egeo, R. iszczu, ask.	Go. wamba, Ga. fem, G. wamme, R. wymia, L. femina.	ερισω. ονταω, G. wunde. Go. wundo.	S. wan, wane, C. gwan.	αταω, L. vasto, G. wúste, waste, H. bázan.	aεξω, L. vegeo, Go. wahsia, G. wachse.	$\theta \epsilon \rho \mu o \nu$, P. garm, S. wyrman, Ga . garam.	S. wriggan.	L. verbum, Go. waurd, Li. wardas: G. wort.	S. wealcan, G. walzen, ελκω, Li welku, R. woloku.	G. wehre, Go. waria, Li. wyras.	ouery, S. wenan, G. wahnen, H. bun.	Li. ukstu, υγρος, υακιζω, G. wasche.	L. vulpes, Li. wilkas, $\alpha\lambda\omega\pi\eta\xi$.	ειλαρ, L. vallum, Li. wolus, R. wal, G. wall, F. val.	Go. weila, G. weile, S. hwile.	G. weiss, Go. hweits, $\kappa a \zeta \omega$, L. castus, P. safid, S. hwit.
MEANING.	surround, going swiftly, knowledge	wish,	woman,	anger, hirt.	dry,	injure,	accumulate,	heat,	crooked,	read,	move,	defend,	reflect,	clean,	wolf,	cover,	time,	white,
SANSKRIT.	Vand, 1, Vihanga, Vidyá,	Ish, 23,	Vámá, 13,	Krodha, Vundh.	Vána,	Vasta,	Vaksh,	Gharma, 10,	Vṛijana,	Vrittam,	Valga, 5,	Vṛi, 20,	Ven,	Uksh,	Vṛika,	Val, 13,	Velá, 2,	Shweta, 46,
ENGLISH.	Wend, Wing, Wise,	Wish,	Woman,	Wrath, Wound	Wan,	Waste,	Wax,	Warm,	Wriggle,	Word,	Walk,	War,	Ween,	Wash,	Wolf,	Wall,	While,	White,

COGNATES.	G. wagen, R. wezenie, L. vehiculum.	G . wege, S. wæg, $\beta^{a\omega}$, L. via, voyage, H. boa.	βασκω, G. wischen.	fit to beharnessed, P. yugh, ζευγος, W. jau, Ga. kuing, S. ioc, R. igo, Go.	S. jong, πθεος. [juka.	", Go. ia, Ga. ia. R. ei. Ga. e. C. efe. F. oni.
MEANING.	vehicle,	speed, 13,	motion, 3,	fit to be harnessed,	youth,	so,
Sanskrit.	Vahana, 4,	Vega, 13,	Vaska, 3,	Yugya, 30,	Yuvan,	Iva,

Wagon, Way, Whisk, Yoke, Young,





On a new species of Cervus, Cervus Dimorphe'. By B. H. H. Hodgson, Esq. Resident, Kathmandoo. With a Plate.

In January last, I procured from the Saul forest of the Morung, a young Stag rising two years, having horns of an unique character, and a stature and other attributes seeming to place him between the Axines and Rusans. I considered this animal to belong to a new species, but, as he was young and had the horns imperfect, I determined to wait awhile before noticing him to the Society. animal since his arrival has lived and flourished in my stable. now nearly three years old, and his horns are perfect; but his pelage in course of moult or change. I will not not, however, longer defer giving you a summary description and sketch of what I apprehend to be an undescribed, though large and handsome species of Deer. animal, like Cervus Wallichii, and Cervus Elaphoïdes vel Duvancellii, possesses a mixed character, so that I hesitate to class it with any known group at present, and shall merely indicate this attribute by assigning to it the trivial name of Dimorphé. My specimen has been reared in confinement: yet it approaches the Rusans in size and stature, but retains in youth at least a good deal of the graceful Axine type. Its horns are small, owing to confinement perhaps, and it is possible that maturer age may develope more snags or antlers. At present there is but one on each beam, and it has a very forward direction, as in Elaphus and our Affinis, species to which the present one is also allied by its short tail and moderate suborbitar sinus.

Cervus Dimorphé, Mihi, new. Deer with moderate pale smooth horns, Axine in the general style, but more bent in the middle of the beam, more divergent and possessed of only one basal antler, which is directed very forward; small, or moderate, and vertical suborbital sinuses; interdigital pores; broad spreading ears and short stag-like tail. Stature and aspect mediate between the Axines and Rusans. In youth bright fawn-red, spotted with white; in age nigrescent bay with blackish neck and belly; a dark list round the muzzle, and white chin: limbs pale. Habitat the Saul forest.

Nepal, October, 1843.

Note on the "Flata Limbata," and the White Wax of China. By Capt. Thomas Hutton, B. N. I.

This insect occurs abundantly a little above Rajpore, extending along the jungles at the base of the mountains; the larva is of a pale brown, but this colour is completely hidden beneath a coating of pure white cottony down and powder, with which the whole body is thickly covered; from the tail or anal segment of the abdomen springs a thick tuft or brush of pure white down, which in a state of quiescence, remains horizontally extended posteriorly, but which the insect has the power of erecting and spreading out, so as to cover the whole of its back. These cottony appendages are curled or crisped at the ends, and when erected have precisely the appearance presented by the cut and curly ends of a root of celery when prepared for the table. larva is furnished, like the perfect insect, with an inflected proboscis; the antennæ are also similar in both, being composed of three joints, of which the two basal ones are thick, strong and cylindrical, the second or middle joint being the longest, and the third or apical joint is a mere seta or bristle. The eyes of the larva are black, and it is from beneath them, and a little anteriorly, that the antennæ spring. The hind pair of legs have three short spines, the others are unarmed; the foot terminates in a double hook; and in these respects also the larva and image correspond, except that the hind legs in the latter have no spines. The perfect insect is furnished with four wings, the under pair being pure white, and the upper pair or elytra of a beautiful apple green, bordered anteriorly with red; the abdomen is powdered with white cottony down as in the larva, and the last segment is furnished with a thick tuft of the same substance. The larva of this species is abundant on a certain shrub growing in the jungly tracts a little above the base of the mountains; they come forth from the ova in December, clustering round the stems and stalks of the branches and leaves, and even on the back of the leaves themselves. deposit upon the branches a waxy substance of a pure white colour, in small grains of various sizes, and sometimes the branch becomes thickly encrusted with the substance; it is, however, more especially upon the leaves of the shrub that the wax accumulates, and this is so thickly laid on, and becomes so firm from exposure to the atmosphere, that it may

be pared off with a knife in thick scales or shavings, having very much the appearance of true wax. The taste is sweet, and the scales may, when fresh, be moulded into balls by the fingers. The reason why it accumulates so much on the leaves is simply from their catching the liquid drops which fall from the hundreds of larva clustering around the stems above.

This wax-like substance appears to be the excrement of the larva, and as it falls from them it is caught and collected upon the surface of the leaves, which at first appear to be only slightly sprinkled with moisture, and have a shining appearance like that caused by certain species of aphides. The liquid dropped is at first sticky to the touch, and sweet in taste; the leaves appearing to be thinly bedewed with honey; this gradually accumulates, and as it passes from a liquid to a solid state, appears like a thick coating of wax upon the leaves, but as it dries by exposure to the sun and atmosphere, it hardens into a snowy white brittle substance, giving the tree the appearance of being white-washed, or frosted over with white sugar, like the top of a Twelfth Night cake. It then cracks and falls in pieces to the ground, where it soon dissolves from rain and dews, and is lost.

The larva cluster so thickly round the stems of the shrubs which they frequent, as to give them the appearance of being loaded with snow, and the moment the tree is shaken, they spring off with a sudden jerk in all directions; when in motion, they erect the caudal appendage or cottony tail.

Some of the mature insects remain on the trees even after the larva are hatched, and I have taken many both in January and February; the green colour of the elytra had, however, given place to a faded yellow tinge like a withered leaf, and the insects were in a semi-lethargic state.

The larva appears in December or beginning of January, and gradually increases in size until the period of the rains, that is, until the middle of June, when they change to the perfect insect, and no more wax is deposited. This substance increases in quantity as the larva increases in size, but as it readily dissolves in water, it disappears entirely as soon as the rains have set in. The larva shews no rudiments of wings until its last moult, in which stage Donovan has figured the larva of *F. nigricornis*.

The last change being completed, the perfect insect now assumes the place of the larva, and clusters in hundreds around the stems of the same shrubs that nourished it through its immature stages, and instead of the snowy aspect which they formerly wore, the twigs are now, as it were, encircled by small green leaves or fruit.

I have never seen the Flata Limbata in motion unless when disturbed. They appear to pass their lives in a state of inactivity, merely moving round the stems of the shrubs, and never willingly leaving them until disturbed, when they spring off with a sudden hop, as the larva did before them, and like them, although dispersed far and wide, they gradually make their way back to the twigs of their favorite bushes.

The eggs are deposited within the twigs of the shrubs, which are punctured in patches of about one inch in length all round the stem, which frequently bears four or five of these nests; the places of deposit are detected by a slight swelling of the wood.

It is stated in Westwood's edition of Donovan's insects of China, that the wax deposited by the "Flata nigricornis," has been supposed to be the excrement of the insect, but that such is not in reality the case. I am of opinion, however, that the supposition is correct, and that the wax-like substance is nothing more than an accumulation of the fæces dropped in a liquid state from the larva, and I am strengthened in this belief from observing, that a perfect shower of minute liquid drops descends at intervals from the clusters of larva, and that these drops after accumulating and partially drying, are converted into the waxy state from which it is supposed wax candles are made, and which furnishes the famous white wax of the Chinese Empire. It has been suggested, that the liquid drops are an exudation from the punctured branches of the tree, but this I think is impossible; because in the first place, the drops of liquid are so minute and so sticky, that they would not have weight enough to cause them to detach themselves from the punctured stems; and secondly, because the larva are so closely clustered together round the stems, that any juices dropping from the tree, would never reach the ground, but must inevitably be intercepted by, and accumulated upon the bodies of the larva, which would thereby be destroyed. From these observations I am of opinion, that the liquid is the excrement of the larva, and it appears to differ very little from

the white powder and anal canopy of white cottony down with which the insect is loaded.

Kirby and Spence seem to think it very doubtful whether the Chinese wax is in reality the produce of the "Flata limbata;" and remark, that as Sir G. Staunton merely supposes that such is the case, and as he does not appear to have tried the experiment of dissolving the wax in oil, there is more reason to believe, that the white wax of China is the produce of a totally different species. In this opinion I most fully concur, from the results of experiments made on the wax-like substance procured from the "Flata limbata."

Westwood refers the wax to the "Flata nigricornis" of China, and states that the F. limbata inhabits Ceylon. Cramer, who figures both insects, gives Ceylon as the habitat of F. limbata, but assigns Africa as that of F. nigricornis; the specimen of the latter however, figured in Donovan's Insects of China, is said to have been taken from India. It is probable, therefore, that F. limbata may occur in Ceylon, India and China, and that F. nigricornis may likewise be found in the two latter countries, for Chinese forms are exceedingly common in this part of India, and this season I have captured both the Chinese Atlas Moth (Saturnia Atlas,) and two fine specimens of "Buprestis bicolor," said to be an inhabitant of Java.* I have likewise a species of Flata agreeing in all respects with F. nigricornis, except in wanting the row of black dots along the posterior margin of the elytra.

The newly-deposited wax of Flata limbata I found to dissolve readily in water, and when boiled and allowed to cool, a deposit of clear white crystals was formed in the vessel; these had no taste, and felt gritty in the mouth. On trying to dissolve this deposit in warm or even in boiling oil, no combination of the two took place, nor was I more successful in my endeavours to dissolve the crude wax in oil; while the attempt to melt it on the fire without water or oil proved altogether abortive, the wax merely burning and consuming away till it became converted into a hard and baked substance. Melted in water, the mixture assumed a brownish hue with strong aromatic scent. Thus all my endeavours to convert the substance into wax for economical purposes, according to the directions given in Westwood's edition

^{*} Mr. W. H. Benson also possesses a specimen of $B.\ bicolor$, taken here some years since.

of Donovan's Insects of China, failed most completely, thereby proving the doubts of Messrs. Kirby and Spence to be well founded, and clearly shewing, that the article termed the white wax of China, is not the produce of the "Flata limbata."

Regarding the Chinese wax, Du Halde informs us in his 'Histoire de la Chine,' that "Il y en a qui disent que c'est la fiente de ces insectes qui s'attachant a l'arbre forme cette cire, mais ils se trompent." (Westwood's Donovan's Insects of China, p. 41.) Notwithstanding this assertion, I am of opinion that if Du Halde refers to F. limbata. he is himself in error, and that the wax-like substance produced by that species, which Kirby declares to be the Chinese insect adverted to, is nothing more, as I have above stated than the fæces of the larvæ. Is it, however, fully ascertained that the species of insect referred to by the above named author, is really the F. limbata, or even the F. nigricornis, as stated by Donovan? This at least is certain, namely, that if the wax of the Chinese insect is soluble in warm oil, as Du Halde and Sir G. Staunton have declared it to be, it cannot possibly be the produce of the F. limbata, for I have shewn already by experiments, that the produce of that species is altogether insoluble in oil.* Besides this, Du Halde relates that, "after melting and straining the wax, it is thrown into cold water, where it congeals into small cakes." This too will not hold good with respect to the wax of F. limbata, for after melting it on the fire and immersing it in cold water, a precipitation of beautiful small clear crystals is produced, instead of cakes of wax. Neither will the substance melt on the fire, nor combine with oil, like true wax, but requires the aid of water to dissolve it.

It is not improbable that Sir George Staunton may have supposed this species to be the true wax insect, from the mere circumstance of its producing a wax-like substance on the branches and leaves of the shrubs on which it feeds, for he does not say positively that he had ascertained it to be the fact, but merely that the powder was supposed to form the white wax of the East.

The Abbé Grosier's account of the wax insect can moreover in no way be made to apply to the larva either of *F. nigricornis* or *F. limbata*; for he states, that the tumours on the branches "increase until they

^{*} Unless some peculiar kind of oil may possess the power of dissolving it?

are as big as a walnut, and that those nests are the abdomens of females, filled with the eggs which are to give birth to the cocci, which when hatched, disperse themselves over the leaves and perforate the bark under which they retire," and that the wax is afterwards "perceived rising from the bark round the body of the insect., (vide Kirby and Spence, vol. 1. p. 327.) Now as already stated above, the eggs of F. limbata are deposited in the branches of the tree, the bark of which is perforated or punctured all round quite closely in longitudinal rows to the length of about one inch; their presence being indicated by a very slight intermescence of the wounded parts. When the larva are hatched they come forth from beneath the bark, and cluster in hundreds around the stems and twigs, living thenceforward unconcealed, and depositing a liquid shower upon the leaves beneath their resting places, which as it hardens in the air, assumes a wax-like appearance, and eventually becomes pure white like hoar frost, when it cracks and falls to the ground in pieces of various size and thickness, and is soon incorporated with the dust.

From all these statements, therefore, we arrive at the positive conclusion, that as this deposit will neither melt on the fire per se, nor combine with oil, it cannot be the substance from which the famous white wax of China is formed; and we are led to perceive from the difference in the habits of the larva of Flata limbata, and that of the insect mentioned by the Abbé Grosier, that the wax is rather the produce of a species of coccus than of the larva of Flata limbata, or even of the allied F. nigricornis.

Specimens of the wax are sent for analysis:-

No. 1. The crude fresh wax as gathered from the leaves.

No. 2. Is the wax after drying from exposure to the air.

No. 3. Is the deposit of crystals on the cooling of No. 1. Dissolved on the fire with water.

No. 4. Is a specimen of "Flata limbata."

Should the wax, after analysis, be found of any use, either medicinally or otherwise, it can be collected in considerable quantity from January till June.

THOMAS HUTTON, Captain,

Mussooree, 15th August, 1843.

Bengal Army.

Qualitative Examination of the Native Copper found on Round Island in the Cheduba group South East of Ramree, and forwarded to the Society by Captain Campbell, See Proceedings Asiatic Society for April 1843. By S. Mornay, Esq.

H. Torrens, Esq., Secretary of the Asiatic Society of India.

MY DEAR SIR,—I have great pleasure in handing you the result of the examination I have made, at your suggestion, of the Copper from Flat Island.

My own business has occupied me so much lately, that I have had very little spare time to give to the investigation, or I should have finished it much sooner.

Your most obdt. servt.

S. MORNAY.

A qualitative Analysis of Native Copper found on Flat Island, in the Bay of Bengal.

A piece digested with heat in dilute Sulphuric Acid for several days, left a grey powder undissolved, (residuum No. 1.) The solution was pale blue, precipitated with Bi-carbonate of Ammonia, and re-dissolved, all the soluble part of the precipitate with Caustic Ammonia.

In the undissolved part found globules of *Mercury*, separated them and dissolved the rest in cold Muriatic Acid. The solution was greenish yellow: neither boiling nor diluting with water made any alteration. This solution was affected by reagents, as follows:—

Caustic Potash-White, permanent.

Caustic Ammonia-White, ditto.

Carb. of Soda-Snow white.

Hyd. Sulp. of Amm.—Green black.

Ferro-chyaz. of Potash—Dark blue (whole mass coagulated.) In some experiments this reagent merely changed the color of the solution to a dark olive green, owing to the acidity of the solution.

Tincture of Galls—Brown, it therefore contained *Titanium*.

The above-mentioned solution in Caustic Ammonia evaporated to crystallization, gave beautiful blue crystals; those dissolved in water, behaved as follows:—

Caustic Potash-Pale blue, permanent.

Ditto Ammonia—Pale blue, flocculent: in excess of Ammonia, soluble with the beautiful blue color characteristic of Copper

Carb. of Soda-Pale blue green, permanent.

Bi-carb. of Ammonia—Pale blue: in excess soluble with the same blue color, as above.

Hyd. Sulp. of Ammonia—Black.

Ferro-chyaz. of Potash-Brick red.

Tincture of Galls-No re-action.

Mur. of Barytes-Dense white.

they were therefore pure Sulphate of Copper.

Residuum No. 1, melted by the blow-pipe, in the oxidizing flame with Borax and Phosph. of Soda, gave a limpid gloss: but in the reducing flame, at the moment of cooling it assumed a beautiful garnet color, which was permanent, till the bead was fused again in the oxidizing flame, when it became limpid. When much of the oxide was used, the lead assumed a clear black instead of the garnet color.

In some experiments, the color was dirty brown, but a little tin added, immediately purified the color.

These two experiments prove the presence of Titanium and a little Iron.

Residuum No. 1, digested in Muriatic Acid, cold. (At the bottom of the vessel, appeared small limpid crystalline scales, brilliant as the diamond.)

The solution behaved as follows:-

Caustic Potash-White, permanent.

Ditto Ammonia-Ditto ditto.

Carb. of Soda—Ditto ditto, (very voluminous.)

Hyd. Sulp. of Ammonia—Black.

Ferro-chyaz. Potash—Emerald green. (In three days turned opaque dark blue and deposited.)

Tincture of Galls-Brown.

Titanium again:

The bright scales dissolved in slightly acidulated water:-

Caustic Potash-White, soluble in excess.

Ditto Ammonia-Ditto, permanent.

Carb. of Soda-ditto ditto, (dense white.)

Hyd. Sulp. of Ammonia-Black.

Ferro-chyaz. Potash-White.

Tincture of Galls-Pale brown.

Sulp. Acid-Dense white.

Nitrate of Silver-Ditto. ditto, flocculent.

they were therefore Muriate of Lead.

In one experiment, another piece of the copper dissolved in Nitric Acid, left a heavy white residuum, which, digested in concentrated Sulp. Acid, left another residuum, which last digested in an excess of Muriatic Acid, boiled and diluted with water, gave a solution which shewed the presence of Cobalt; as under:—

Caustic Potash-Brown.

Ditto Ammonia-Blue rose.

Carb. of Soda-Pale rose.

Bi-carb. Ammonia—No re-action till the Acid was neutralized, when pale rose.

Hyd. Sulp. of Ammonia-Pale dirty yellow.

Ferro-chyaz. of Potast. Emerald green, (next day dark blue deposit.)

Tincture of Galls-Brown.

... Cobalt with a little Titanium.

Summary.

This Mineral is an alloy of Copper, Titanium, Mercury, Lead, Cobalt and Iron, in different proportions.*

Remark.

The different pieces vary in their composition.

S. MORNAY.

No. 13, Chowringhee Road, 28th November, 1843.

^{*} There is, in the Philosophical Magazine for June 1843, an account of a Fahlerz containing Mercury from Hungary, but we have as yet found no traces of Sulphur or Antimony with our Mineral. The specimen which I examined, which was one of the first sent up by Capt. Williams was nearly pure native copper, with a coating of red oxide and the blue and green carbonates.—H. P.

Memoranda of Earthquakes and other remarkable occurrences in Upper Assam, from January 1839 to September 1843. By Capt. Hannay, B. N. I.

(Day		
Month.	of Month.	Occurrences.	Remarks.
January	14,	Earthquake 9 r. m.	Felt at Suddeeah, direction apparently from S. W. to N. E. preceded some days by rain and heavy snow in the mountains; air very cold.
Feb.			This month commenced hot, with dreadful hail storms, thunder and lightning.
June	3,	Earthquake 8 P. M.	At Suddeeah, apparently from South to North, strong N. E. wind. Burrumpooter high, wet and disagreeable weather.—N. B. From March up to this date, the season unusually rainy. Small-pox very prevalent, lost several men and a native officer from this disease.
Sept.		Cholera.	Cholera broke out, and continued with more or less severity at Suddeeah until the end of November; about 30 men in the corps died—this disease followed a Detachment which proceeded on service into the Mishmee Hills on the 18th October, and spread amongst the Hill tribes.—N. B. Although I now forget the month, I think there were four
March	4.	Total Sun Eclipse and Earthquake.	shocks of Earthquakes felt at Suddeeah in 1839. When the sun was obscured, the air was unusually cold and disagreeable to the feelings, even to nausea. About an hour after the Eclipse passed off, i. e. about 1 P. M. a smart shock of an Earthquake, and about 10 minutes afterwards another; both shocks appeared to have come from south—these
Feb.	9,	Earthquake.	I felt outside, the sky cloudless, but the atmosphere hazy. 1840. Passed without any thing else remarkable; it was a healthy and seasonable year. Felt an Earthquake at Gowhatty on either the 9th or 11th, forgot which. This Earthquake was different to those above-mentioned; it was accompanied by a low rumbling noise; was sharp and stunning, as if a blow had been struck under the jaw; the others alluded to, appeared, on the contrary to have more
June		Gales. Meteor.	of a trembling or rocking motion. Strong gales on the Burrumpooter, both this month and July, from the N. E. N. B.—In February 1841 at night, a splendid Meteor was seen at Seebsagur, and in other stations in Upper Assam. It passed from East to West of the heavens, and burst with a loud report, the first like the firing of several large guns, and ending exactly like musquetry file firing.—Individuals on the Frontier who had not seen the Meteor, imagined some of the out-posts had been
	January Feb. June Sept. March	Month. of Month. January 14, Feb	Month. of Month. January 14, Earthquake 9 r. M. Feb Earthquake 8 r. M. Sept Cholera. March 4. Total Sun Eclipse and Earthquake. Feb. 9, Earthquake.

		Day		
Year.	Month.	of Month.	Occurrences.	Remarks.
1842	January	4,	Earthquake 7½ P. M.	A smart shock felt at Seebsagur; the weather gloomy, cold and threatening rain; cannot speak as to duration; shock similar in motion
1842	June	Gales.		From 3d to 6th, heavy gale of wind from South-west.
	October	29,	Earthquake about 8 p. m.	A smart shock of an Earthquake; duration apparently from S. W. to N. E. trembling motion.
vere	Feb. March	7,	Comet.	Air unusually wet; a disagreeable month. Seen at Sakenah on the evening of the 7th of this month. Head with a common compass W. 21° South, and of Tail West 47° South—
ry se g; se fatal	April	4,	Meteor.	rain continued most of this month. From East to West seen at Seebsagur, burst with two loud reports.
ths, Cholera vengand Durrung June, but none	April	6,	Earthquake 8 P. M.	After a very hot day and close sultry evening, a severe shock of an Earthquake at Dibrooghur, lasted several minutes. The motion however was only trembling, affected those houses which had posts built up by walls; duration appeared to be from West or South-
oweo Vowgo	April	7,	Earthquake.	west. Slight shock felt at Dibrooghur at midnight. N. B. Both these Earthquakes felt at Seeb-
During these months, Cholera very severe at Gowhattee, Nowgong and Durrung; several cases at Seebsagur in June, but none fatal.	May	24,		sagur, Jeypoor and all over Upper Assam. From this date to 27th May, gales of wind at Seebsagur from S. W. Some of the squalls very severe, sky in the day time clear, but stiff looking, with some white fleecy clouds; gale blowing hard on 26th along the line of the Naga mountains 15 miles distant, and on the Burrumpooter, which rose very high.
1843	June	15,	Earthquake	At 11 A. M. smart shock of an Earthquake; motion, vertical.
•••••	June	17,	Earthquake 8 P. M.	A very smart shock; at first slight and followed by a severer one; motion undulating, and from the position of a clock which was stopped, must have come from S. W. or West; lasted altogether about a minute. The weather rainy, with occasional light squalls from S. W. These shocks felt at Dibroo, Jeypoor and Sakenah, that of this date at a few minutes past 8, reported by the Officer to have thrown down a portion of the bank of the Burrumpooter.
	August	23,	Meteor.	A meteor of no great magnitude passed to the North, very vivid lightnings in the S. W. several flashes appeared as if rising from the ground like the bursting of a
	Sept.	3,	Earthquake 2½ г. м.	shell. After as hot and sultry a day, (the 2d) as I ever felt, the clouds gathered to S. W. indicating rain, but passed off without any; night very close and sultry; awoke by a smart shock of an Earthquake; cannot speak as to duration.

Year.	Month.	Day of Month.	Occurrences.	Remarks.
1843	Sept.	3,	Earthquake 7½ P. M.	After a very hot day, clouds gathered at S. E. very close and sultry; squall came on a little before sunset; vivid lightning all round the heavens; previous to squall, making an extraordinary noise in the heavens over head like the falling of heavy rain on distant jungle, or like the rushing of wind through a funnel, with this noise you heard an occasional growl like distant thunder. When the rain fell, this noise, which had continued for sometime ceased—thunder very high in the heavens, but the lightning one blaze all round. Whilst at dinner, smart shock from the South.

Memorandum of various Phanomena in 1843. By the Rev. N. Brown, Missionary Assam.

January 14 .- Great gale in England.

February 8 .- Earthquake at Antigua.

February 18 .- Earthquake at Leipsic.

February 27 .- The comet passed its Perihelion.

March 3.-Comet seen at Sea 10° S Lat. 25° W Long.

March 6 .- Comet seen at Calcutta.

Murch 10 .- Earthquake in England at 1 A. M.

April 1 .- Earthquake at Bellary at 5 A. M.

April 4 .- Meteor at Sibsagur,

April 6 .- Earthquake at Sibsagur about 8 o'clock in the evening.

April 7 .- Earthquake at Sibsagur at 1 A. M.

June 3 .- Earthquake at Titalyah.

June 15 .- Earthquake at Sibsagur at 11 A. M.

June 16 .- Earthquake at Sibsagur at 8 P. M.

June 17 .- Earthquake at Ceylon.

August 23 .- Evening, a meteor fell near Sibsagur.

September 3. - Earthquake at Sibsagur at 1 past 2 A. M., another at 1 past 7 P. M.

Proceedings of the Asiatic Society. (Wednesday Evening, the 4th October, 1843.)

The regular Monthly Meeting was held on Wednesday evening the 4th October.

The Honourable the President in the chair.

The following new Members were balloted for and proposed:-

Dr. A. Sprenger, B. M. S. was duly elected; and ----

W. Ganthony, Esq. was proposed by the Secretary, and seconded by Mr. Piddington.

The following list of Books, presented and purchased, was read.

Books received for the Meeting of the Asiatic Society on the 4th October, 1843.

The Calcutta Christian Observer, October 1843, new series, vol. iv, No. 46.
Presented by the Editor.

The Calcutta Literary Gleaner, Calcutta, August and September 1843, vol. ii, Nos. 6 and 7. Presented by the Editor.

Supplement to the Oriental Christian Spectator, 2nd series, Bombay, August 1843, vol. iv, No. 8. Presented by the Editor.

The Monthly Journal of the Agricultural and Horticultural Society of India, Calcutta, 1842-43, vol. ii, Nos. 1 to 7.

Hart's Report on the Trade and Resources of Kurrachee, Calcutta, 1843. Presented by Government.

Survey of the Route from Kurrachee to Sehwan, Calcutta, 1843. Ditto.

Report on the Kulleeree Canal, 1840. Ditto.

Collection of Papers regarding the course of the Indus, and especially of its Eastern Mouth and the Branches falling into the Runn of Cutch, Calcutta, 1843. Ditto.

The Annals and Magazine of Natural History, London, June 1843, vol. xi, No. 72.

Yarrell's History of British Birds, London, June 1843, vol. i, part 37.

Wilson's Translation of the Megba Duta, or Cloud Messenger, 2nd Edition, London, 1843. From the Author, H. H. Wilson, Esq. &c. &c.

Stevenson's Translation of the Sanhita of the Sama Veda, London, 1842.

Selections from the Mahabharata, edited by F. Johnson, London, 1842.

Sanhita of the Sama Veda, from MSS. prepared for the Press by the Rev. J. Stevenson, London, 1843, (Sanscrit.)

Read the following letter from the Secretary of the Royal Asiatic Society of London:—

To the Secretary of the Asiatic Society of Bengal, Calcutta.

Dear Sir,—I have had the pleasure to receive, through Messrs. W. H. Allen and Co. your letter of the 11th May, enclosing a Bill of Exchange for £21, the amount of two years' Subscription of your Society to the Oriental Translation Fund. As Messrs. Allen and Co. have paid the Subscriptions for 1842 and 1843, the amount of your Bill shall be duly credited to your Society for the years 1844 and 1845.

With thanks for your obliging attention to my request for a remittance,

I have the honor to remain, Dear Sir,

London, 14, Grafton Street, Bond Street,

Your's truly,

11th July, 1843. James Reynolds,

Secretary.

Read the following letter from the Society's Booksellers and Agents, Messrs. Allen and Co.:—

To H. TORRENS, Esq. Secretary to the Asiatic Society.

Sir,—We have received your letter of the 11th May, informing us of your having resumed the duties of Secretary to the Asiatic Society, upon which we congratulate you. By the enclosed letter you will observe, that we have paid £21 to the Rev. James Reynolds, on account of the Subscription of the Society to the Oriental Translation Fund for the years 1842 and 1843. We shall be obliged by your attention to our letters of 29th April, and 17th and 30th June last, addressed to Mr. Piddington, as Secretary to the Society.

Your most obedient Servants,

London, July 31, 1843.

WM. H. ALLEN & Co.

Read the following letter from Mr. John Murray, son and successor of Mr. John Murray, of Albemarle Street, London:—

SIR,—Among the numerous accounts of Books which, in succeeding to the business of my late father, I have caused to be made out, is that of the Royal Asiatic Society,* and I now forward you a copy of it from 1834, when it was last settled. The balance due to the Society shall be paid as you direct, as soon as you furnish me with the authority for so doing, and enable me to obtain a receipt.

I have to call your attention to the very slow and partial sale of the Transactions for some years past, and to suggest that, if you were to place the work in the hands of some publisher more intimately connected with India, the interests of the Society might be more surely advanced. I have to request you to take this into consideration, and to authorize me to deliver over the stock now in my warebouse to such Agent as you may appoint. As I anticipate removing my warehouse shortly, it would be very convenient to me to resign this charge, which I feel to have been an honor.—From some error in our enumeration, we paid the Society for certain copies of Vol. VII, which we now find are still in our hands.

I remain, Sir,

Albemarle Street, August 4.

Your obedient Servant,

J. MURRAY.

^{*} So in MSS, the common mistake of confounding the Asiatic Society of Bengal, with the Royal Asiatic Society of London.

1843, June 30. £. s. d. To Advertising to this date, 8 8 0 9 Copies of Vo. VIII, account- ed for last Settlement as sold, but still on hand at 32, less the Commission, 12 19 3 28 Vol. XVIII. pt. I to Messrs. Parbury and Co. 19-6 19 10 0 15 ditto to Asiatic Society, Cal- cutta, 19-6 14 12 6 Balance carried forward, 16 11 3	
·	Physical 40 ,, XVIII. pt. I. Received 19-6 39
	ditto. 10 ,, XVIII. pt. II. ditto 2 sold 10-6 1 1
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72 1 0	72 1 0
Vol. 12 1813, June 30.—To Balance carried forward, 4 9 6	1843. June 30. Balance carried forward, 16 11 3 8vo. By 293 on hand, last settlement Dec. 1829. 234 on hand, June 30, 1843. 9 sold,, 11, 4-19 Commission, 9 6
4 9 6	4 9 6
Copies on hand June 30, 1843. 5 vol. I. 105 vol. I. 105 vol. II. 105 vol. III. 105	June 30. Balance carried forward, 4 9 6 Ditto on the 18 vols. as per Acct. above, 16 11 3 Due to the Asiatic Society, 21 0 9

The following letters relative to this matter are here inserted for the sake of connection:—

To J. MURRAY, Esq. Albemarle Street, London.

SIR,—I have the pleasure on behalf of the Asiatic Society of Bengal, to thank you for your communication of the 4th August last, forwarding your Account Current with the Society closed to the 30th June last, exhibiting a balance of £ 21:0:9 due to the Society, which sum you are hereby requested to pay to Messrs. W. H. Allen and Co. of Leaden hall Street, on their receipt.

Messrs. Allen and Co, will also receive from you the stock of Books you have on hand on behalf of the Society.

I am, &c.

Calcutta, 13th December, 1843.

H. Torrnes.

Messrs. W. ALLEN and Co., London.

DEAR SIRS,—I had the pleasure to address you on the 5th September last, to which begging reference, I now take the opportunity to enclose a letter to the address of Mr. J. Murray of Albemarle Street, requesting him to transfer to you the stock of Books he has on hand belonging to the Asiatic Society, which up to the 30th June, 1843, was as per Memorandum furnished by Mr. Murray, and is annexed to this communication for your information and guidance. Mr. Murray has been also requested to pay to you, on your receipt, the sum of £ 21:0:9, being the balance due to the Society from him. This sum you will place to the credit of the Society in Account Current with yourselves.

The stock of Books which will be received by you, you will sell as opportunities offer, placing proceeds to credit of the Asiatic Society, and furnish A. C. in course for information.

I have &c.

13th December, 1843.

H. TORRENS.

Read the following letter from Messrs. Allen and Co.

To the Secretary to the Asiatic Society, Calcutta.

The 13th June, 1843.

SIR, - We beg to advise you of our having forwarded a case to the above address, by the ship Essex, containing a marble bust of the late James Prinsep, Esq. We enclose a Bill of Lading.

The Bust was sent to us by Professor Wilson, with instructions to forward it to the Society by an early opportunity.

We beg to annex for your information, an account of the shipping and other expences incurred by us, which sum we have placed to the debit of the Society.

We have the honor to be, Sir,

Your most obedient Servants,

London, June 17, 1843.

WM. H. ALLEN & Co.

Asiatic Society, Calcutta, London, to Messrs. WM. H. ALLEN and Co. per "Essex."

June 12, 1843. Asiatic Society, Calcutta, H. Piddington, Esq. Secretary.

Case containing Marble Bust of J. Prinsep, value £105 forwarded by direction of Professor H. H. Wilson. ... £105 0 0 Charges.

Entry, Wharfarge, Shipping expences and Bills of Lading, ... 0 14 0 Freight £1:7:0; Insurance on £110, at 40 per cent £2:4:0

and policy 10s. ... 4 1 0 £109 15 0

Read letter from Messrs. Collett and Co. acknowledging receipt of the 49 (not 50 as supposed) copies of the Scinde Vocabulary, sent to them for sale.

Read the following letter from the Secretary to Government of India in the Foreign Department:-

No. 193.

Office Memorandum.

The Secretary to the Government of India in the Foreign Department has Collection of Papers regard- the honor of forwarding to the Secretary of the Asiatic ing the course of the Indus, &c. Society, for deposit in the Society's Library, one copy of Survey of the Route from Kurrachee to Sehwan. each of the printed papers noted in the margin. Report on the Trade and Re-

sources of Kurrachee. Report on the Kulleeree

Canal.

Fort William, Foreign Department,

The 30th September, 1843.

J. THOMASON.

Secretary to the Govt. of India.

The Secretary stated, that it had been brought to his notice by Dr. Roer, the Librarian, that the present Library rules were by no means sufficient for the careful and exact custody of the Books, and that some amendments and additions were imperatively required. Ordered, that the Committee be requested to revise the Library Regulations.

Read the following papers, detailing the progress which had been made since the Meeting of September, in carrying into effect the Society's resolution to address Government on the subject of the new Volcanic Island and Copper Ore deposit near Cheduba.

Memorandum by the Geological and Mineralogical Curator, as requested by the Society.

At the September Meeting of the Society was read the following letter of Captain D. Williams, Assistant Commissioner, Arracan:—

No. 1824.

MY DEAR SIR,—The Soogree, or head revenue officer on the Island of "Regaing," or "Flat Island," has just made a report, of which the enclosed is a translation, that on the 26th, 27th, 28th and 29th of last month, a Volcano broke out in the sea, a little distance South of "False Island," and a new Island was formed.

On reference to a chart of Arracan, you will see that "False Island" is East of "Flat Island," and the latter is South of "Round Island," whence I obtained the Copper Ore I lately sent to the Asiatic Society; the groupe is situated on the S. E. shore of the Island of Chedooba. I consider the subject of sufficient interest to report on to the Society, especially as regards its vicinity to the Island where the Copper Ore was found.

Yours, &c.

Ramree, August 9, 1843.

(Signed) D. WILLIAMS.

P. S. I have sent for specimens of the new formation.

2. A notice of the Copper Ore alluded to will be found in our Proceedings for the month of April, but I may briefly state here, by way of connecting the facts for consideration, that in March Captain Williams sent us up some very pure specimens of rolled native (virgin) Copper, and a ring manufactured from them by a native artist, which he stated had been found on Flat Island.

I wrote for more of it, as also for information as to the site, and specimens of the matrix, &c. before reporting on the subject to Government, and Captain Williams in reply sent me a quantity of gravel and shells from the sea shore, without a trace of the ore amongst it,* which the native discoverers had brought to him as a sample of the bed or place where the ore was found. I thought this very suspicious, and that it was probable that the natives having found ont the value of the Copper ore, were now concealing the spot from Captain Williams, and wrote again to him, urging him if possible, to send a person iu some degree qualified to give us a plain common-sense account of the place where this rich ore was obtained, upon which I could found a recommendation to Government, in my report, to have the place properly examined, as there could be no doubt of the value of the ore; but that the quantity and expense of obtaining it were the next and most important considerations. I also mentioned it to Captain Brown and Mr. Howe, the

^{*} Some more Copper was also sent separately, and these specimens were of a different kind of Copper ore from those first sent.— H. P.

Naval Officers at Kyook Phyoo, and to the Commissioner, Captain Bogle. Captain Williams' last reply was, that he feared that for the present they had no one who would be likely to furnish a good account, but mentions Captain Siddons, the local Engineer Officer, to whom I intended to write, but illness for the last five weeks has prevented the preparing of my report to Government, and further correspondence on the subject.

Capt. Williams' letter was read at the meeting, but omitted in the Proceedings --

MY DEAR SIR,—An apology is due from me to you for having neglected to reply to your letter of May last, (I believe,) about the Copper Mine on Round Island, of which I am reminded by your letter, just received, of the 28th ultimo.

I should then have informed you, or I now beg to do, that it is necessary for a scientific person being sent to examine the spot. There is no such individual in this province that I am aware of, unless Lieut. Siddons of the Engineers, just arrived, may be; this must be done too in the fine season between November and April.

I lately sent up two gold Coins found on Chedooba to the Asiatic Society; since then I have had brought in two lumps of iron six inches long by $1\frac{1}{2}$ inch broad in the centre tapering to the ends, found on the same spot with the coins; the natives here tell me, they are weapons used by the Eastern pirates, which they hurl like a javelin at boats in attack, and that some such pirate boat must have been wrecked on Chedooba where the iron and coins have been found. I do not give sufficient credence to so improbable a story as to induce me to send up one of the Javelins, but will keep them for the Asiatic Society's orders.

Yours very truly,

Ramree, July 20, 1843.

D. WILLIAMS.

- 3. It was proposed and sanctioned at the Meeting, that the Society should respectfully represent to Government the importance of dispatching some fully qualified person to the spot to examine into, and report upon it for general information.
- 4. The principal grounds upon which we may do so are, as they occur to me, the following:—

First.—The great, and indeed intense interest which geological phenomena of this kind invariably excite in Europe, as being connected with, and most strongly illustrating many researches and theories relative to the past and future changes of our globe.

Secondly.—Their interest in a maritime point of view, as connected with the appearance and disappearance of shoals, &c. in seas extensively navigated.

Thirdly.—The occurrence of the phenomenon so immediately in our own vicinity, and at a spot with which by means of the H. C. S. Amherst, we have a regular communication; so that, to use a homely phrase, "we have no excuse" for neglecting to investigate it.

Fourthly.—The great interest attaching to it as occurring so near to the spot of the recent eruption of the mud volcano of Ramree, and so soon after the great earthquake at Pulo Nias, on the coast of Sumatra, and its forming the Northern extremity of the great volcanic band laid down by Von Buch as extending only to Barren Island.

Fifthly.—Its undoubted connection with all the singular phenomena of the upheavements going on upon the Island of Cheduba, as by Captain Halstead's report, and the rich field which the adjoining coasts and islands probably afford for valuable geological data, as to the former changes which have taken place both there and further to the Northward and inland to the Eastward.

Sixthly.—The foregoing considerations are geological ones. The presence of the rich copper ore makes it perhaps a matter of financial importance to Government to trace out if possible whence this is derived. It may be a mere ejection from the volcanos, as is supposed to occur in Iceland, or it may be that some of the islands or shoals are masses of copper ore, or that rich deposits of copper exist on the mainland or on the banks of the Aeng river; and I should mention in reference to this, that, as shewn to the Society at a recent meeting in the case of silver ores, rich ores of copper (the grey, black, and tile copper ores) might easily be thought common stones by those unaccustomed to recognise them.

There are, in short, all the possibilities from zero upwards, in such matters; and it is rare indeed that the opportunity occurs of tracing out on the same spot at one and the same time two questions, the one of abstract and the other of practical science.

Lastly.—I need not remark, that in researches of this kind, mere zeal without knowledge is a very insufficient qualification, and that it would be most unfortunate were the Society not to represent to Government in the strongest terms, that the most fully qualified person that can be found should be selected, and this plainly on financial as well as on scientific grounds.

If Members of the Committee of Papers will kindly add such farther suggestions as may occur to them, we shall be able thereupon to draft a letter to Government, setting forth the Society's views on this question, and respectfully soliciting its adoption of them.

H. Piddington,

13th September, 1843.

Curator Mineralogical and Geological Departments.

Memorandum by the Secretary.

I have to submit to the Hon'ble the President and the Committee of Papers, a note prepared by the Curator of the Museum of Economic Geology, upon the proposed recommendation to Government, that a properly qualified person be sent to report upon the peculiar geological phenomena, which have been recently observed in the neighbourbood of Chedooba Island, as also upon a discovery of copper ore in the immediate vicinity of the volcanic influence.

The opinion of the Society has been recorded as to the high expediency of such a measure, and it now only remains to be decided, whether Government should be addressed as being requested to despatch a proper person, or whether the Society should not rather propose to select and despatch such a person, superintending, controlling, and directing his operations, the general charge being defrayed at the public cost.

I should be prepared in the event of the latter proposition being entertained, to lay before the Hon'ble the President, the names of qualified persons, from whom an employé might be selected, and have even had a proposition made me by a gentleman of scientific attainments to be allowed to accompany the person deputed as for his individual satisfaction, giving the advantage of the result of his observations. This would give us a double set of notes.

I need not say that we bave no officer of the Society available for this scientific mission. The duties of the Museum imperatively require the constant presence and steady exertion of our officers, for after years of labor we are only just now beginning to establish order, and the good work must not be relaxed in.

I bave the honor to request orders on the above points. H. Torrens,

Vice President and Secy. As. Socy.

H. TORRENS, Esq. Secretary, Asiatic Society of India.

SIR,—Having heard that the Society contemplate sending a person to investigate certain Geognostical phenomena in the Indian seas, I beg leave to offer my humble services to the Society for that purpose.

In support of my pretensions I hand you with this, copies of three documents, the originals of which I have by me, ready to produce when called for,

Mr. Marshman's letter I shew you, merely to prove that I have executed work of a scientific and laborious character in this country, without any assistance, to the satisfaction of a man well capable of judging it.

The report of Mr. Robt. Stephenson, the Engineer of the London and Birmingbam Railway, upon the plans and estimates for a Railway in Brazil, shews that he was satisfied with my work in this peculiar line,—and the document upon which I lay most stress, is the certificate of the Council of Mines of Saxony; on the face of which you will see, that I bave acquired some knowledge of all the Arts and Sciences which bear upon Mining, including Geology, Mineralogy, Chemistry, Metallurgy, Assaying, Surveying, and Mining Engineering: all of which may probably, more or less, be brought into action, on this occasion.

I beg to assure you, that if the Society should entrust me with this interesting commission, no exertion shall be spared by me to further the objects of my employers.

Your most obedient Servant,

Calcutta, 25th September, 1843.

S. MORNAY.

Mr. Mornay's certificate above alluded to is as follows:-

We, the Council of Mines of the Kingdom of Saxony,

Hereby testify, that Mr. Stephen Mornay from London, was matriculated on the Mining College of this place, by Royal License, dated 9th October 1829, and that he attended the following courses of lectures with great industry and very good success; viz. Mining; Geology; Mineralogy; Petrefactology; Natural Philosophy; General, Technical, Metallurgical, and Analytical Chemistry; Metallurgy; Transcendant Mathematics; Construction of Mining Machinery; Architecture and Drawing. And that he proved himself zealous in the attainment of practical knowledge in Geology and Mining. And that his conduct has always been moral and gentlemanly.

To certify these facts, we have, at his request, drawn up this certificate, sealed with the seal of the Council of Mines. Signed by us.

LS

Freyberg, 6th October, 1832. Royal Saxon (Signed) FREYHEER v. HERDER.

Council of Mines. (Ditto) H. v. MANDELSLOH.

Certificate for S. Mornay, No. 1966. (Ditto) R. E. G. Se'gnitz.

H. T. TORRENS, Esq. Secretary, Asiatic Society of India.

Sin,—In reference to the offer of services contained in my letter to you of the 25th instant, and in regard to the payment of those services, I beg to state that I readily agree to the terms and conditions proposed by you at the Society's Rooms yesterday; viz.

1st. That I receive Co's. Rs. 400 (four hundred) per mensem, for whole months, and Co's. Rs. 150 (one bundred and fifty) per week for hroken periods.

2nd. That I receive Co's. Rs. 3 (three) per diem, for my travelling expenses, whenever I am not supplied by the Honourable Company, with the means of conveyance, and

3rd. That all contingent expenses he defrayed by the Honorable Company.

I heg to add, that my time is in no way engaged, and that consequently I do not limit the term of my services to any period, but shall be glad to be employed on any other service I may be deemed fit for by the Society.

Your most obedient servant,

Calcutta, 28th September, 1843.

S. MORNAY.

The Secretary and Committee of Papers were requested to address Government, proposing that a scientific person be deputed at the public cost to investigate the Geological and Mineralogical Phœnomena of this quarter.

Read the following letter from Capt. D. Williams, 1st Assistant to the Commissioner Arracan:—

My dear Sir,—I have now the pleasure to send you the two lumps of iron that were found with the gold coins on Chedooba, and which, the natives say, are the weapons used by the pirates from the Eastward in their attack on boats. Lieutenant Phayre, the Senior Assistant of Sandoway, proceeds to Calcutta on leave on the "Amherst," and will prohably take charge of these lumps of iron, and if I see him on his way, I will request him to converse with the natives on the subject. I shall feel extremely ohliged for any information that may be gained respecting the gold coins; they are not coins of this country, either under the Mug or Birman dynasties, as Lieutenant Phayre can prove.

Yours sincerely,

Ramree, August 23, 1843.

D. WILLIAMS.

The lumps of iron alluded to were exhibited. They are much corroded, but their form seems to have been, when perfect, a rough double square pyramid, of about two or three inches on each side joined at the base, which

is now about two inches only. They presented externally the usual carbonised appearance and softness of iron which has been much exposed to water, but were found to be internally sound and metallic.

Read the following letter from Conductor Dawe, relative to the remains of the Dadoopoor Museum, which have been kindly offered to the Society by Capt. Baker, B. E.:—

To H. PIDDINGTON, Esq. Sub-Secretary, Asiatic Society, Calcutta.

Srn,—I beg to acknowledge the receipt of your note respecting the collection which has been offered to the Society by Captain Baker, and in reply, I beg to inform you, that I find in the Museum three or four fair specimens of Mastodon's heads; a few large masses of the heads of above with the upper jaws, and the teeth in good preservation; several of lower jaws of above, the enamel of the teeth in good condition; a few fragments of heads and bones of Hippopotamns and Rhinoceros, and numerous bones of smaller animals in a fractured state, but which can be easily joined with our cement. I can also select a variety of the teeth of deer, horse, bullock and the like. But what I now particularly write for, is, to get your instructions as to the quantity you would wish me to send, as I find the cost of each six dozen chest full that has been sent down to Calcutta through the merchants at Meerut, has been on an average 21 rupees each, including land carriage from this place to Gurmuckteesur Ghat, (eight stages,) and boat hire thence to Calcutta.

As soon as I receive your reply, I shall have much pleasure in selecting what you may require.

I remain, Sir,

Dadoopoor, Sept. 6, 1843.

Your obcdient servant,
Wm. Dawe, Condr. Canals West of Jumna.

It was stated that Mr. Dawe had been requested to forward the whole of these valuable relics.

Read a letter from Capt. Thos. Hutton, B. N. I. accompanying specimens of the Flata Limbata, with that of its wax, and a paper on this Insect and the White Wax of China.

The paper was transferred to the Editors of the Journal for publication. Read the following letter from Capt. Hannay, B. N. I.: from Seebsagur, Assam.

My dear Str,—Perhaps the enclosed Memo. from this part of the world may be interesting. I wish I could speak more correctly as to Earthquakes, for we have I am pretty sure a number of shocks yearly, commencing about January after our first rain which falls about New Year. After very sultry and close weather the air becomes very cold, and we could thus almost say, that atmospheric influence had something to say to our Earthquakes, else we are in the vicinity of some Earthquaking power. Most of our shocks do not appear to be felt lower down the valley, but I have understood that at Tezpoor, shocks are very frequent. No volcances in the neighbourhood, but the line of the Naga Hills (nearer ranges) abound in iron and coal and numerous Petroleum springs, and in the Singpho country springs of white thin mud. You may depend upon my notes of all the Earthquakes put down in the Memo. The shocks this year have been nine in number, and severe compared to those of other years, particularly on 17th June last. It is difficult, however, to ascertain the duration of the shocks. In 1834, an Earthquake threw down partly the old palace of Rungpoor, and a part of the earth opened near Jorehath, from which issued red sand and water. The Cholera visited the valley in 1834, 1839, and 1843.

Your sincerely,

Seebsagur, 5th September, 1843.

- W. HANNAY.

This peculiarly interesting document was transferred to the Journal for publication, and the Sub-Secretary stated, that he had had a copy prepared for forwarding to Lieut. Baird Smith, who has so zealously taken up this branch of research.

Read the following letter from G. Buist, Esq. in charge of the Hon'ble Company's Observatory at Bombay:—

H. TORRENS, Esq. Secretary to the Asiatic Society.

DEAR SIR,—I duly received, through the Bombay Government, a copy of your application to be supplied with copy of the Registers of the Bombay Magnetic and Meteorological Observatory at present temporarily under my charge.

I should have complied immediately with your request, and forwarded a monthly number of our observations so far as they extend, that is, from 1st September 1843, without delay, but that as we were on the eve of completing the year, I have thought it better to defer for a few weeks, when the volume will be sent to you.

I have taken the liberty of explaining this to you for the information of the Society, lest you should suppose that the delay had arisen from any neglect or inattention.

I have forwarded by the Ship Samuel Boddington, to the address of Mr. Piddington, a copy of a chart for the use of the Asiatic Society of the readings of nine Barometers observed simultaneously for 24 hours, projected on curves—the memoir explanatory of this is now nearly ready, and will be sent by post.

I shall at all times have the greatest gratification of forwarding for the use of your Society, any documents connected with the Observatory they may desire to possess.

I have the honor to be, &c.

Bombay, 6th September, 1843.

GEO. BUIST.

Read a letter from Capt. Thos. Hutton, B. N. I. offering for sale to the Society, a large collection of above 1600 specimens of Natural History from Affghanisthan and the Hills. The offer was declined, the Society already possessing a large proportion of the specimens.

Read extract from a letter from Capt Boileau, Magnetic Observatory, desiring to know whether the Society would be willing to take up the publication of his Hygrometric Tables.

It was resolved, that the Society do so.

Read the following extract of a letter from Lieutenant Colonel Reid, R. E. Governor of Bermuda, and author of the well known work on the Law of Storms, addressed to the Sub-Secretary, affording a gratifying proof of the interest taken in that branch of research at home, and of the advantage which the early publication of the labours of scientific men through the Society's Journal affords them.

MY DEAR SIR,—I have received all your six Memoirs, and I believe all your letters, and I should have answered your last one sooner, but for the importance I attached to the Memoir on the Storms of the China Seas. I have read it with great attention, and the more I considered it, the more I saw you had bestowed great pains upon it. As I went on reading, I drew a diagram on the margin for each storm, such as a seaman would have to draw, had he no data but his own observations in the midst of a

storm. If you could get wood-cuts made at Calcutta, such diagrams would, I think, improve your papers.

There can be no doubt, as you shew, that some of the Storms as they pass over the China Sea, have sometimes a course to the Southward of West. At first I thought the Storm of each of the ships called *Thetis* must be but one storm: but after attentive study, I am more inclined to agree with you and with your paper, which throughout bears the impression of attentive consideration. I hope you will be able to go on, and be supported in your endeavours to develop this great subject as regards the Indian Seas. I do not doubt that you will be assisted by the Governor of Hong-Kong and the British Government Agents in China, and shall consider whether any recommendation from me can help to procure such aid for you, not from the intrinsic worth of any recommendation of mine, but of the value of the subject, and the importance of it in saving life and property.

Here the Admiral on this station, Sir Charles Adam, is giving us great assistance by requiring all the squadron under his command to improve the mode of keeping the log books, and helping in what he can to track the gales. One Storm we have followed from the West Indies nearly across the American continent, at least to the mountain ridge beyond Victoria in Mexico.

I do not recollect that I sent you a copy of the enclosed printed note.—"On sailing on curved Courses when meeting with revolving winds," which has been printed three times over. I hope soon to receive some other tract from you. Believe me,

Yours, &c.

Government House, Bermuda, 23d June, 1843.

(Signed) W. REID.

Read the following Report from the Curator Museum Economic Geology, for the months of August and September.

During the month of August, illness having prevented my preparing a report, the present one will comprise both months.

Museum Economic Geology.

Our first contribution here is a truly valuable one from Mr. Homfray, to whom the Journal is indebted for a valuable paper on the coal mines of the Damoodah District, in 26 specimens from the Amanath and others of the Palamow Coal Fields, comprising specimens of the strata (in one instance to the granite) and of various trap dykes of the greatest geological and mining interest. Mr. Homfray's letter is as follows:—

H. PIDDINGTON, Esq.

MY DEAR SIR,—I have now the pleasure to forward for the acceptance of the Asiatic Society for their Museum of Economic Geology, a set of specimens of the strata in the Amanath Coal Field of Palamow District, as also some others from the Palamow Coal Field, together as per list annexed.

I have also sent some of the principal specimens of the sandstone rock which I have hitherto met in sinking my deep pit at Salmah, now, August 1843, down as low as 275 feet, having passed through seven veins of inferior and thin Coal and one of Iron stone, and am still going downward, having persevered for many years in sinking this pit, and at an enormous outlay of money to myself alone.

I send also two pieces of the Basaltic Dykes taken from the place where the two greatest Dykes of the Coal Field of Damoodah actually cross each other; thus one is from the Bharah Dyke to distinguish it from that of Salmah, and this Bharah is evidently the most recent, as it runs through that of Salmah, and the other piece is from the Salmah Dyke at the same locality. The Ironstone from beneath the Behareynauth Hill is the same sort as wbat is now smelted near to Gautcole.

From the Barracar I send a piece of the great fault (Greenstone) which throws up and cuts off abruptly the vein of Coal, and also a curious sample of the Coal found and cut from the vein close to the fault. I am, Dear Sir,

Yours faithfully,

Golahdangah, Howrah, 18th August, 1843.

J. HOMFRAY.

- 1. Sandstone, the upper one of the Amanath Coal Field.
 - 2. Shalc.
 - 3. Sandstone the second.
- 4. Ditto (hard) from the middle of Coal vein.
 - 5. Ditto with pebbles over main Coal.
 - 6. Shale below main Coal.
 - Sandstone below ditto.
 Ironstone.

 - 9. Main Coal.
- 10. Conglomerate Sandstone below the Ironstone.
 - 11. Black Shale below ditto.
 - 12. Syenitic Quartz. below ditto.
 - 13. Granite below ditto.
- 14. Found in the pass hetween Shapore and Choperee.

- 15. Black Shale found to the Westward of the Coyle and towards the Kunkur Run.
- 16. Limestone (Lias?) from Rotasghur.
- 17. Black Shale from near Bidgeghir by Kuleas Copas village.
- 18. Ironstone from Potua Agar in the Palamow Coal Field.
- 19. Thin Coal from several veins in the river near Rotas (Palainow.)
- 20. Five samples of Sandstone from the Salmah pit, now sinking.
- 21. Clay slate from ditto.
 22. Basalt from Bharah Dyke, at the intersec23. Ditto from Salmah ditto, tion.
- 24. Ironstone from Behareynaut.
- 25. Coal from the fault in the Barracar Colliery at the fault.
- 26. Greenstone from the above fault.

Our next contribution is from Captain R. Ouseley, Assistant to the Agent of the Governor General, S. W. Frontier, who forwards with the following letter, specimens of Agalmatolite.

To the Secretary of the Asiatic Society of Calcutta.

DEAR SIR,-I have the pleasure to forward by this day's Dawk Banghy, a small package to your address, containing three specimens which appear to me to answer the description given in " Jameson's Manuat of Mineralogy" of Agalmatolite, or Figure stone.

The two smallest pieces I polished myself hy rubbing them on a broad file. I have not yet visited the spot where it is to be found, but am told that it can be obtained in large quantities, and from all accounts, slates of considerable size might be gained by skilful workmen, adapted for chimney pieces, tops of teapoys, &c. &c.

As my duty will prohably take me in the direction where the stone is found, I shall endeavor in the cold season, to proceed to the spot and examine it myself. I shall feel much ohliged if you would inform me whether this may he considered a discovery of any value, and if you let me know on what points, and regarding what minerals, &c. you would wish to have information, I shall at all times have much pleasure in forwarding any I may obtain.

I am, Dear Sir,

Yours very faithfully,

R. OUSELEY.

In reply to which I wrote as follows :-

MY DEAR SIR,—Your specimens duly arrived, and I am glad to say are as you supposed Agamatolite; the light greenish-white kind is probably the most valuable, but we should have some good slabs and blocks sent down to ascertain their value in China, where some of the kinds, and of the varieties of Jade (Axe-stone often found near these rocks,) are highly prized. You may have seen in the papers that they are shipping the New Zealand kind, which is like transparent green marble, to China. Carriage is the great obstacle I fear from your quarter, but however, you may be able to find out a cheap road. Kindly give us early information as to localities, &c. and as the rock has an evident tendency to seam and split in rhomboidal fragments, any approaching to crystals would be a great prize if you can find them.

Your best specimen of lead and antimony ore contains a mere trace of silver, but in my report which has gone in to Government, I have urged the importance of sending a practical man to the spot. The report is now printing, and I will send you a slip as soon as 1 get one.

Yours very faithfully,

22nd August, 1843.

(Signed) H. PIDDINGTON.

From the Superintending Engineer, S. E. Provinces, Major Fitzgerald, B. E. we have received a box containing the various specimens of Tin alluded to in Capt. Tremenheere's report of his visit to the Pakchan river, which with the former one, will thus be available in the Museum for the inspection of those who may interest themselves in these matters.

Geological and Mineralogical Department.

Observing in a paper published by Brigadier Twemlow in the Journal, No. 135, p. 229, mention made of "indurated clay with fossils" near Ellichpoor, I wrote to him, requesting the favour of specimens. He has sent us one which is of much interest, a hornstone prophyry with imbedded casts of shells from thence, and he promises others as soon as he can obtain them.

MY DEAR SIR,—I have the pleasure to acknowledge the receipt of your polite letter of the 12th instant; it will give me much pleasure if I can be of any use to the Society, and in attention to your request, I forward immediately a specimen of the fossil shells alluded to in note E of my communication of date 30th August, 1841, to the address of the Secretary, of the Agricultural and Horticultural Society. I shall be glad if you would at your leisnre inform me what the matrix is, and the name of the larger shell if it can be made out. I found the specimen* in the bed of a nullah at the south base of the range of hills about six miles N. N. E. of this cantonment; I will search for the site whence it was washed.

I am, Dear Sir,

Yours truly,

GEORGE TWEMLOW.

Ellichpoor, July 29, 1843.

As the consideration of my note on the advantage and utility of deputing a qualified person to examine the new Volcanic Island in the neigbourhood of Ramree, and the site from whence the copper ore was obtained, has formed a special matter of discussion, I do not further allude to it here, as it will be found in the Proceedings.

H. PIDDINGTON.

* With others having the appearance of wood outside, as in the small specimen sent herewith. This is a fragment of fossil bone,—H. P.

F. Davis. London, 1829, 28 pages, 4to. Vocabulary of Scinde Language, by Capt. Eastwick Leach.

Grammar and Vocabulary of the Baloochi and Punjabee Languages.

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